93937

Access DB# _____

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Travis C. McIntosh Examiner #: 79308 Date: 5/12/03

Art Unit: 1623 Phone Number 308-9479 Serial Number: 10/054,019

Mail Box and Bldg/Room Location: 8B19 8D10 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Synthesis of Furanose & Aminofuranose Cpds.

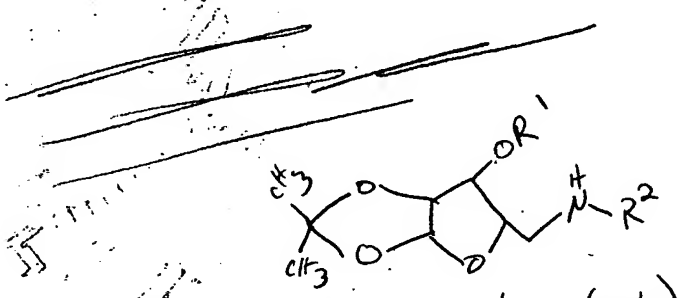
Inventors (please provide full names): Michael A Walters

Earliest Priority Filing Date: 1/22/01

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

RECEIVED MAY 13 2003 TECH CENTER 1600/2900

Please Search the following Compound:



where -R' is C_1-C_{14} alkyl or $(CH_2)_{0-4}$-aryl

-R^2 is C_1-C_{14} alkyl; $(CH_2)_{0-2}$-cycloalkyl; C_2-C_6 alkenyl; $(CH_2)_{1-4}$-aryl; ~~$(CH_2)_{0-4}$-heterocycloalkyl~~ $(CH_2)_{0-4}$-heterocycloalkyl; $(CH_2)_{1-4}$ heteroaryl; or $(CH_2)_{0-2}$-O-aryl

Thanks

Travis

POINT OF CONTACT:
PAUL SCHULWITZ
TECHNICAL INFO. SPECIALIST
CM1 6B06 TEL. (703) 305-1954

****

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher:	NA Sequence (#)	STN 1109.75
Searcher Phone #:	AA Sequence (#)	Dialog
Searcher Location:	Structure (#) 1	Questel/Orbit
Date Searcher Picked Up: 5/13	Bibliographic	Dr.Link
Date Completed: 5/13	Litigation	Lexis/Nexis
Searcher Prep & Review Time: 10	Fulltext	Sequence Systems
Clerical Prep Time:	Patent Family	WWW/Internet
Online Time: 14	Other	Other (specify)

PTO-1590 (8-01)

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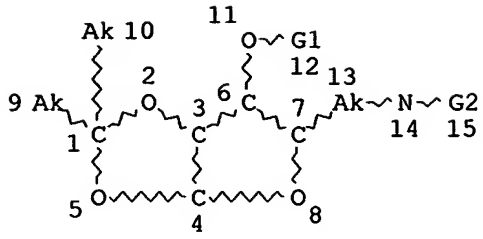
L1 STR



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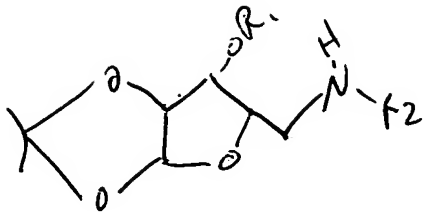
@17 18

Ak @19 Cy @20



Ak Cy
@21 22

O Cb
@23 24

Ak O Cb
@25 26 27

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VAR G2=19/20/21/23/25
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CONNECT IS E1 RC AT 10
CONNECT IS E2 RC AT 13
CONNECT IS E2 RC AT 14
CONNECT IS E1 RC AT 16
CONNECT IS E2 RC AT 17
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CONNECT IS E2 RC AT 21
CONNECT IS E2 RC AT 25
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 18
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M6 C AT 18

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE
L3 34 SEA FILE=REGISTRY SSS FUL L1
L4 13 SEA FILE=HCAPLUS ABB=ON PLU=ON L3

=> d l4 ibib abs hitstr 1-13

L4 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:664740 HCAPLUS
DOCUMENT NUMBER: 137:338076
TITLE: A General Strategy for the Practical Synthesis of Nojirimycin C-Glycosides and Analogs. Extension to the First Reported Example of an Imino Sugar 1-Phosphonate
AUTHOR(S): Godin, Guillaume; Compain, Philippe; Masson, Geraldine; Martin, Olivier R.
CORPORATE SOURCE: Institut de Chimie Organique et Analytique, CNRS - Universite d'Orleans, Orleans, 45067, Fr.
SOURCE: Journal of Organic Chemistry (2002), 67(20), 6960-6970

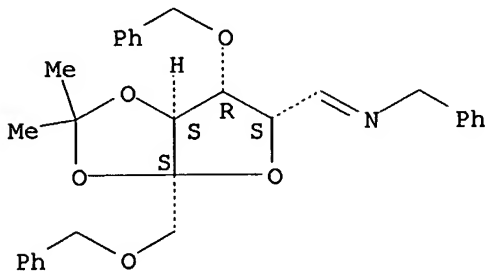
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:338076

AB An efficient and versatile strategy for the synthesis of nojirimycin C-glycosides and related compds. with full stereocontrol is reported. The key steps of the process are the addn. of organometallic reagents onto an L-sorbose-derived imine followed by an internal reductive amination. The addn. step, which controls the .alpha.- vs .beta.-configuration at the pseudo-anomeric center in the final product, is highly diastereoselective (re-face addn.), and the stereoselectivity can be effectively inverted by adding an external monodentate Lewis acid (si-face addn.). The complete synthesis could be achieved in 10 steps only from com. available 2,3;4,6-di-O-isopropylidene-.alpha.-L-sorbofuranose and provided .alpha.- or .beta.-1-C-substituted 1-deoxy-nojirimycin derivs. in 27-52% overall yield. The strategy was successfully extended to the first example of an imino sugar 1-phosphonate. The methodol. provides access to a wide range of biol. relevant glycoconjugate mimetics in which the glycosidic function is replaced by an imino-C-glycosidic linkage.

IT **302788-34-7P 302788-35-8P 302788-36-9P**
302788-37-0P 302788-38-1P 473931-76-9P
473931-77-0P 473931-79-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of imino sugar 1-phosphonate nojirimycin C-glycosides and analogs via stereoselective addn. and reductive amination)

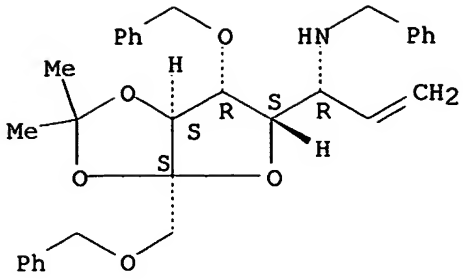
RN 302788-34-7 HCAPLUS
CN .alpha.-L-Sorbofuranose, 6-deoxy-2,3-O-(1-methylethylidene)-1,4-bis-O-(phenylmethyl)-6-[(phenylmethyl)imino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



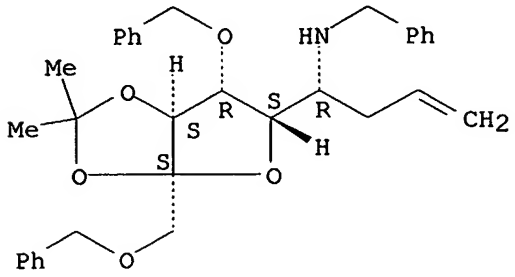
RN 302788-35-8 HCAPLUS
CN .beta.-D-ido-Oct-7-eno-2-ulofuranose, 6,7,8-trideoxy-2,3-O-(1-methylethylidene)-1,4-bis-O-(phenylmethyl)-6-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



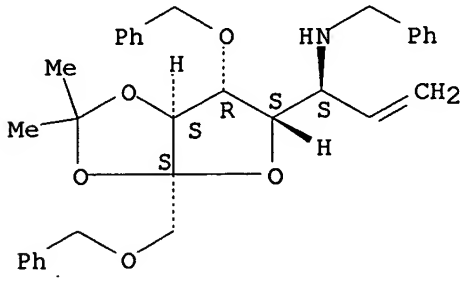
RN 302788-36-9 HCAPLUS
CN .beta.-D-ido-Non-8-eno-2-ulofuranose, 6,7,8,9-tetradeoxy-2,3-O-(1-methylethylidene)-1,4-bis-O-(phenylmethyl)-6-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



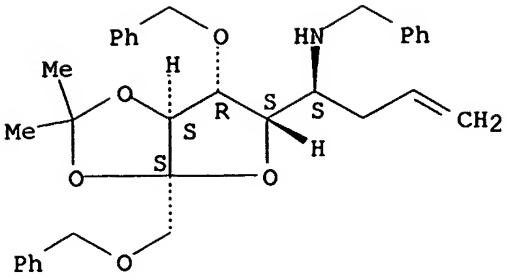
RN 302788-37-0 HCAPLUS
CN .alpha.-L-gluco-Oct-7-eno-2-ulofuranose, 6,7,8-trideoxy-2,3-O-(1-methylethylidene)-1,4-bis-O-(phenylmethyl)-6-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



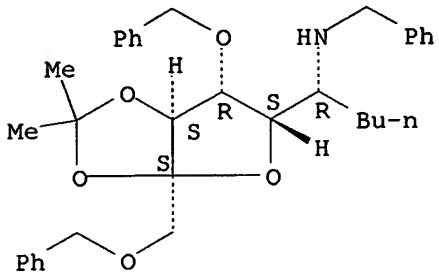
RN 302788-38-1 HCAPLUS
CN .alpha.-L-gluco-Non-8-eno-2-ulofuranose, 6,7,8,9-tetradeoxy-2,3-O-(1-methylethylidene)-1,4-bis-O-(phenylmethyl)-6-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



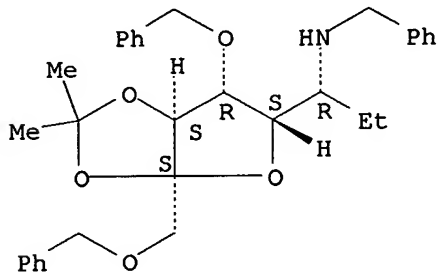
RN 473931-76-9 HCAPLUS
CN .beta.-D-ido-2-Deculofuranose, 6,7,8,9,10-pentadeoxy-2,3-O-(1-methylethylidene)-1,4-bis-O-(phenylmethyl)-6-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



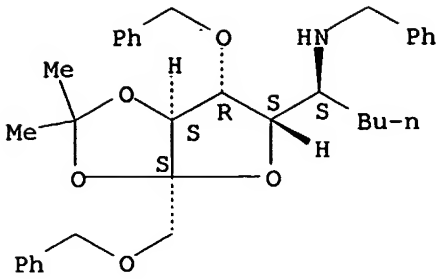
RN 473931-77-0 HCAPLUS
CN .beta.-D-ido-2-Octulofuranose, 6,7,8-trideoxy-2,3-O-(1-methylethylidene)-1,4-bis-O-(phenylmethyl)-6-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 473931-79-2 HCAPLUS
CN .alpha.-L-gluco-2-Deculofuranose, 6,7,8,9,10-pentadeoxy-2,3-O-(1-methylethylidene)-1,4-bis-O-(phenylmethyl)-6-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 84 THERE ARE 84 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

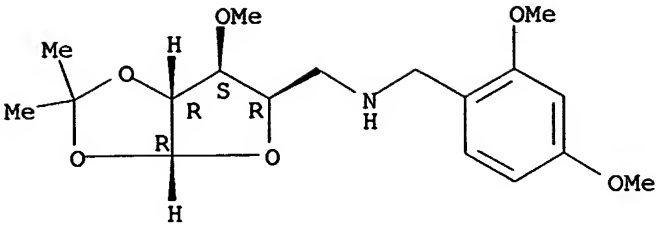
L4 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:259496 HCAPLUS
DOCUMENT NUMBER: 137:20529
TITLE: Solution-Phase Library Synthesis of Furanoses
AUTHOR(S): Krueger, Elaine B.; Hopkins, Thutam P.; Keaney, Meghan T.; Walters, Michael A.; Boldi, Armen M.
CORPORATE SOURCE: ChemRx Division, Discovery Partners International, South San Francisco, CA, 94080, USA
SOURCE: Journal of Combinatorial Chemistry (2002), 4(3), 229-238
CODEN: JCCHFF; ISSN: 1520-4766
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:20529

AB The soln.-phase synthesis of amido-, urea-, and aminofuranoses was achieved. Alkylated furanose aldehydes were treated with primary amines in the presence of sodium triacetoxyborohydride to give secondary amines. Subsequent acylation with acid chlorides and isocyanates afforded amidofuranoses and ureafuranoses, resp. Second, reductive amination of furanose aldehydes with secondary amines yielded tertiary amines. The resulting acetonides were treated with alcs. in the presence of acid to yield mixed acetals. In the library syntheses, functionalized scavenger resins were used in the purifn. of intermediates and products.

IT **434331-23-4P 434331-24-5P 434331-25-6P 434331-26-7P 434331-51-8P 434331-52-9P 434331-53-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(soln.-phase library synthesis of furanoses via amination reaction)

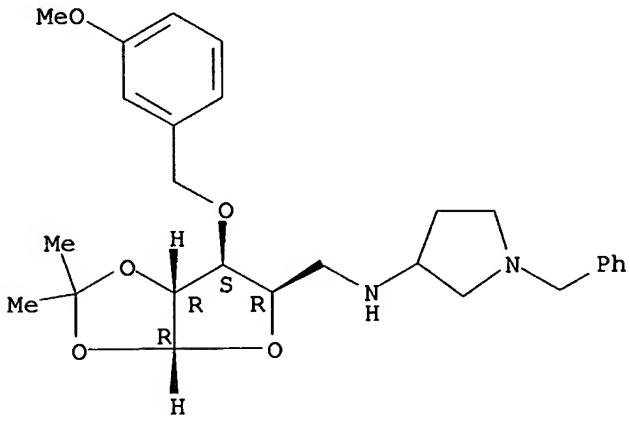
RN 434331-23-4 HCAPLUS
CN .alpha.-D-Xylofuranose, 5-deoxy-5-[[(2,4-dimethoxyphenyl)methyl]amino]-3-O-methyl-1,2-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



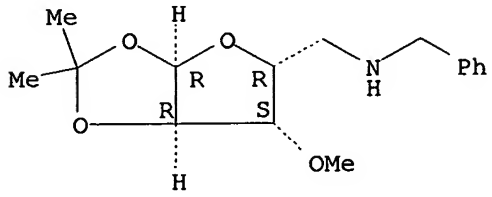
RN 434331-24-5 HCAPLUS
CN .alpha.-D-Xylofuranose, 5-deoxy-3-O-[(3-methoxyphenyl)methyl]-1,2-O-(1-methylethylidene)-5-[[1-(phenylmethyl)-3-pyrrolidinyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



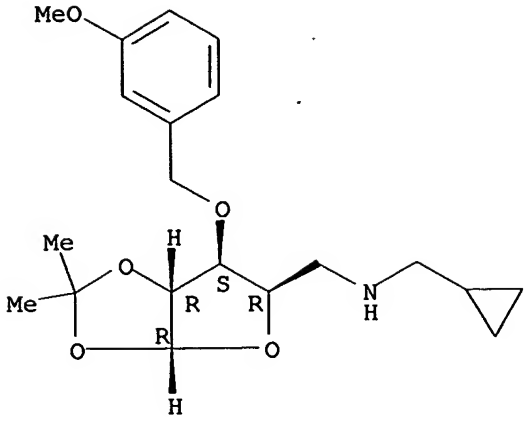
RN 434331-25-6 HCAPLUS
CN .alpha.-D-Xylofuranose, 5-deoxy-3-O-methyl-1,2-O-(1-methylethylidene)-5-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



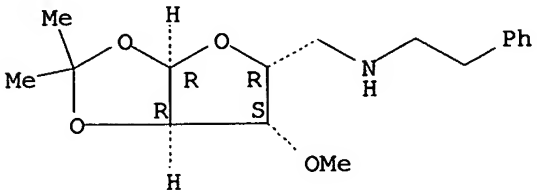
RN 434331-26-7 HCAPLUS
CN .alpha.-D-Xylofuranose, 5-[(cyclopropylmethyl)amino]-5-deoxy-3-O-[(3-methoxyphenyl)methyl]-1,2-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



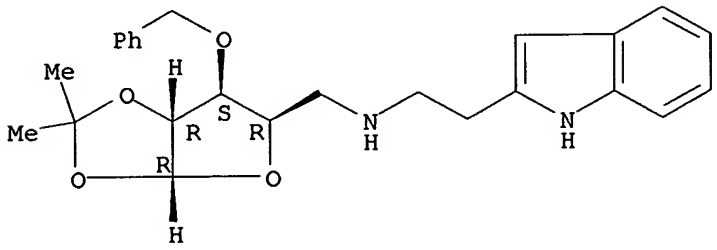
RN 434331-51-8 HCAPLUS
CN .alpha.-D-Xylofuranose, 5-deoxy-3-O-methyl-1,2-O-(1-methylethylidene)-5-[(2-phenylethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



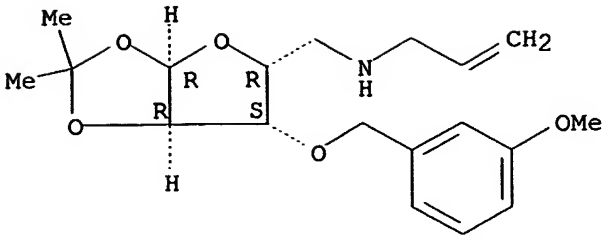
RN 434331-52-9 HCAPLUS
CN .alpha.-D-Xylofuranose, 5-deoxy-5-[[2-(1H-indol-2-yl)ethyl]amino]-1,2-O-(1-methylethylidene)-3-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 434331-53-0 HCAPLUS
CN .alpha.-D-Xylofuranose, 5-deoxy-3-O-[(3-methoxyphenyl)methyl]-1,2-O-(1-methylethylidene)-5-(2-propenylamino)- (9CI) (CA INDEX NAME)

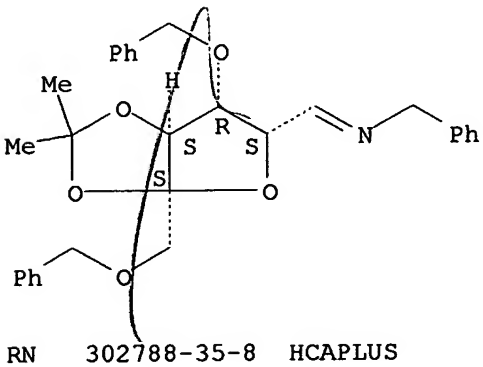
Absolute stereochemistry.



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:590432 HCAPLUS
DOCUMENT NUMBER: 133:322079
TITLE: A New, Stereocontrolled Approach to Imino Sugar C-Glycosides from L-Sorbose
AUTHOR(S): Masson, Geraldine; Compain, Philippe; Martin, Olivier R.
CORPORATE SOURCE: Institut de Chimie Organique et Analytique (I.C.O.A.), Faculte des Sciences, Orleans, 45067, Fr.
SOURCE: Organic Letters (2000), 2(19), 2971-2974
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:322079
AB The efficient synthesis of the imino alditols derivs. (nojirimycin .alpha.-C-glycosides) has been achieved in 10 steps from com. available 2,3;4,6-di-O-isopropylidene-.alpha.-L-sorbofuranose in an overall yield of 23-27%.
IT **302788-34-7P 302788-35-8P 302788-36-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(stereocontrolled approach to imino sugar C-glycosides from L-sorbose)
RN 302788-34-7 HCAPLUS
CN .alpha.-L-Sorbofuranose, 6-deoxy-2,3-O-(1-methylethylidene)-1,4-bis-O-(phenylmethyl)-6-[(phenylmethyl)imino]- (9CI) (CA INDEX NAME)

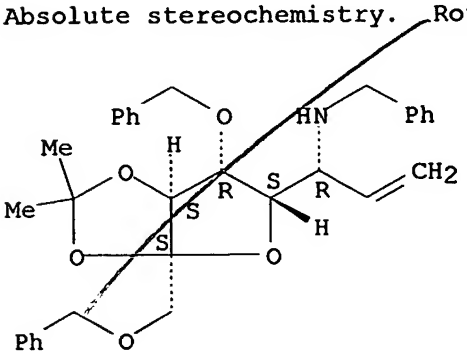
Absolute stereochemistry.
Double bond geometry unknown.



RN 302788-35-8 HCAPLUS

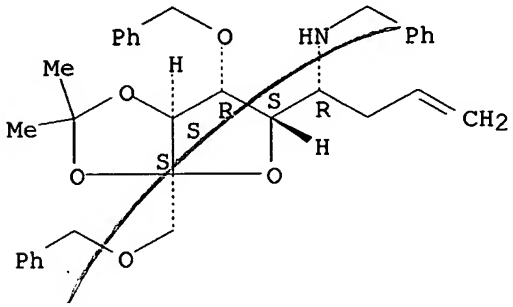
CN .beta.-D-ido-Oct-7-eno-2-ulofuranose, 6,7,8-trideoxy-2,3-O-(1-methylethylidene)-1,4-bis-O-(phenylmethyl)-6-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



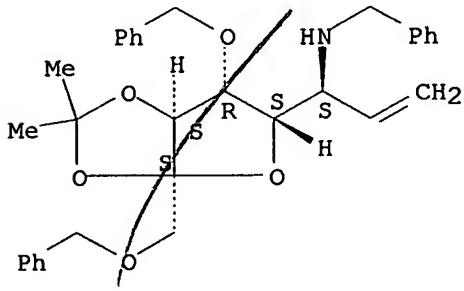
RN 302788-36-9 HCAPLUS
CN .beta.-D-ido-Non-8-eno-2-ulofuranose, 6,7,8,9-tetradeoxy-2,3-O-(1-methylethylidene)-1,4-bis-O-(phenylmethyl)-6-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

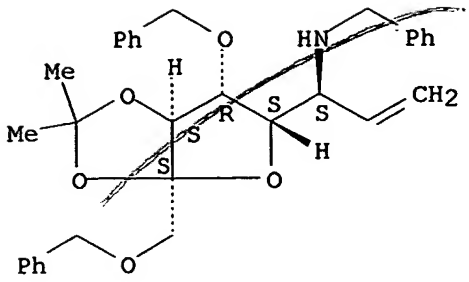
Absolute stereochemistry. Rotation (-).



IT **302788-37-0P 302788-38-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(stereocontrolled approach to imino sugar C-glycosides from L-sorbose)
RN 302788-37-0 HCAPLUS
CN .alpha.-L-gluco-Oct-7-eno-2-ulofuranose, 6,7,8-trideoxy-2,3-O-(1-methylethylidene)-1,4-bis-O-(phenylmethyl)-6-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

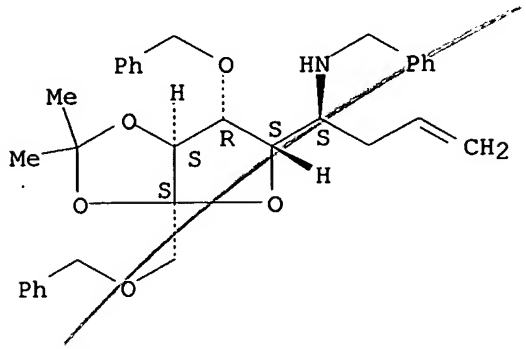
Absolute stereochemistry. Rotation (+).





RN 302788-38-1 HCAPLUS
CN .alpha.-L-gluco-Non-8-eno-2-ulofuranose, 6,7,8,9-tetradeoxy-2,3-O-(1-methylethylidene)-1,4-bis-O-(phenylmethyl)-6-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:520106 HCAPLUS
DOCUMENT NUMBER: 133:281288
TITLE: A general method for the vinylation of nitrones. Synthesis of allylhydroxylamines and allylamines
AUTHOR(S): Merino, Pedro; Anoro, Sonia; Franco, Santiago; Gascon, Jose M.; Martin, Victor; Merchan, Francisco L.; Revuelta, Julia; Tejero, Tomas; Tunon, Victoria
CORPORATE SOURCE: Departamento de Quimica Organica, ICMA, Facultad de Ciencias, Universidad de Zaragoza, Aragon, E-50009, Spain
SOURCE: Synthetic Communications (2000), 30(16), 2989-3021
CODEN: SYNCAV; ISSN: 0039-7911
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:281288
AB An examn. of the vinylation of several nitrones is presented. Whereas a complete diastereofacial discrimination was obsd. upon the addn. of vinyl organometallic reagents to .alpha.-alkoxy nitrones, the same reaction with .alpha.-amino nitrones gave syn adducts in all cases, with the only exception of a L-serine-derived .alpha.-amino monoprotected nitrone. The obtained allylhydroxylamines were easily transformed into synthetically

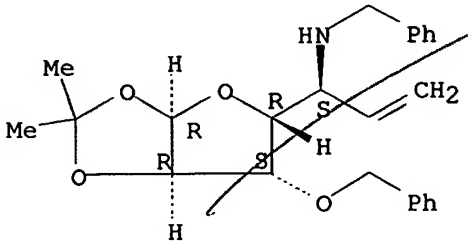
valuable allylamines.

IT **299409-49-7P 299409-50-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(vinylation of nitrones in prepn. of allylhydroxylamines and allylamines)

RN 299409-49-7 HCAPLUS

CN .beta.-L-ido-Hept-6-enofuranose, 5,6,7-trideoxy-1,2-O-(1-methylethylidene)-3-O-(phenylmethyl)-5-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

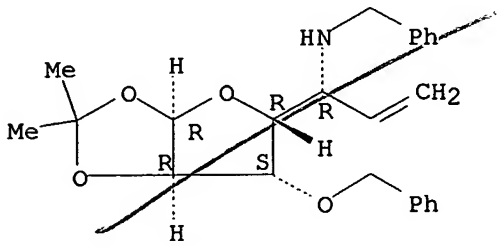
Absolute stereochemistry. Rotation (-).



RN 299409-50-0 HCAPLUS

CN .alpha.-D-gluco-Hept-6-enofuranose, 5,6,7-trideoxy-1,2-O-(1-methylethylidene)-3-O-(phenylmethyl)-5-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 82 THERE ARE 82 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2003 ACS

QD241.T4

ACCESSION NUMBER: 1997:789568 HCAPLUS
DOCUMENT NUMBER: 128:61732
TITLE: Oxazaphosphorinane precursors to the diastereoselective synthesis of DNA phosphorothioates
AUTHOR(S): Marsault, Eric; Just, George
CORPORATE SOURCE: Department of Chemistry, McGill University, Montreal, QC, H3A-2K6, Can.
SOURCE: Tetrahedron (1997), 53(50), 16945-16958
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB New chiral oxazaphosphorinanes were synthesized as potential precursors to

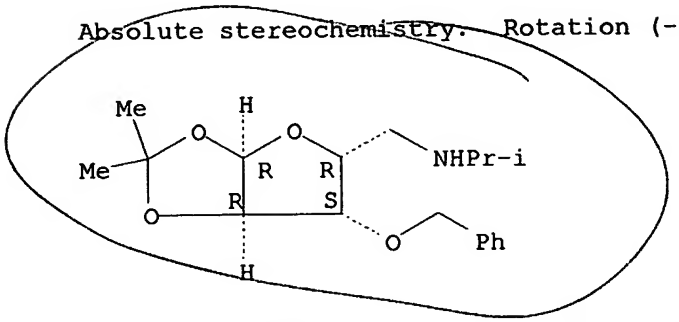
chiral phosphite triesters. Oxazaphosphorinanes nucleosides derived from cholesterol and camphor resp. were obtained as stable compds. They led to rearrangement products in the acidic conditions required for coupling. Then, oxazaphosphorinane derived from D-xylose was synthesized, and led to the diastereoselective prepn. of a T-T phosphorothioate dimer in a 28.5:1 (Rp)/(Sp) ratio.

IT **200335-29-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(oxazaphosphorinane precursors to the diastereoselective prepn. of DNA phosphorothioates)

RN 200335-29-1 HCAPLUS

CN .alpha.-D-Xylofuranose, 5-deoxy-5-[(1-methylethyl)amino]-1,2-O-(1-methylethylidene)-3-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:367305 HCAPLUS

DOCUMENT NUMBER: 127:81699

TITLE: A new route to amino sugars from sugar nitrones: preparation of 6-deoxynojirimycin

AUTHOR(S): Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio

CORPORATE SOURCE: Dep. Chem., Garware Res. Cent., Univ. Pune, Pune, 411 007, India

SOURCE: Tetrahedron: Asymmetry (1997), 8(9), 1475-1486
CODEN: TASYE3; ISSN: 0957-4166

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

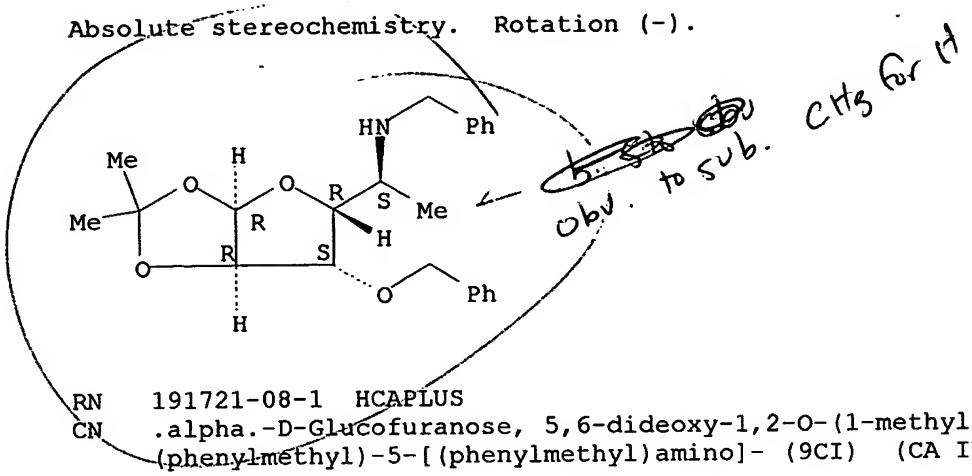
OTHER SOURCE(S): CASREACT 127:81699

AB The 1,3-addn. of methylmagnesium chloride to dialdose derived nitrones afforded N-benzylhydroxylamines in high yields. The stereoselectivity of the addn. reaction was improved by the use of trimethylsilyl triflate. The N-O bond reductive cleavages of N-benzylhydroxylamines took place in good yields and offered an easy access to N-benzylamino sugars. The potential of these amino sugars is demonstrated by the prepn. of glycosidase inhibitor 6-deoxynojirimycin.

IT **191721-06-9P 191721-08-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of deoxynojirimycin via stereoselective Grignard of nitrone dialdose)

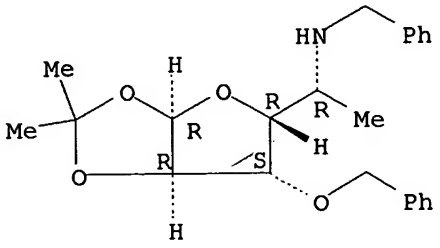
RN 191721-06-9 HCAPLUS
CN .beta.-L-Idofuranose, 5,6-dideoxy-1,2-O-(1-methylethylidene)-3-O-(phenylmethyl)-5-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 191721-08-1 HCAPLUS
CN .alpha.-D-Glucofuranose, 5,6-dideoxy-1,2-O-(1-methylethylidene)-3-O-(phenylmethyl)-5-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

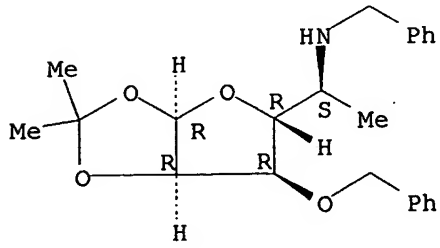
Absolute stereochemistry. Rotation (-).



IT **191721-07-0P 191721-09-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of deoxynojirimycin via stereoselective Grignard of nitrone dialdose)

RN 191721-07-0 HCAPLUS
CN .beta.-L-Talofuranose, 5,6-dideoxy-1,2-O-(1-methylethylidene)-3-O-(phenylmethyl)-5-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

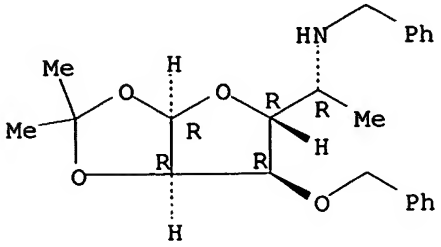
Absolute stereochemistry. Rotation (+).



RN 191721-09-2 HCAPLUS
CN .alpha.-D-Allofuranose, 5,6-dideoxy-1,2-O-(1-methylethylidene)-3-O-

(phenylmethyl)-5-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L4 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:26308 HCAPLUS
DOCUMENT NUMBER: 126:42715
TITLE: Derivatives of 2,3:4,6-di-O-isopropylidene-.alpha.-L-xylo-2-hexulofuranosonic acid
INVENTOR(S): Arora, Sudershan K.; Gupta, Manoj K.; Lukos, Pushappam; Kumar, Ravinder; Sawhney, Shanti N.
PATENT ASSIGNEE(S): Chemora Pharmochem, USA
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9635431	A1	19961114	WO 1996-US6124	19960506
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
US 5637570	A	19970610	US 1995-437378	19950509
AU 9656354	A1	19961129	AU 1996-56354	19960506
PRIORITY APPLN. INFO.:			US 1995-437378	19950509
			WO 1996-US6124	19960506

OTHER SOURCE(S): MARPAT 126:42715

AB Di- and trisubstituted derivs. of 2,3:4,6-di-O-isopropylidene-.alpha.-L-xylo-2-hexulofuranosonic acid are provided in which there is .gtoreq.1 alkyl group at position 1; position 4 is occupied by an OH, O-alkylamino, or O-alkylaminoheterocyclic moiety; and the OH group at position 6 is replaced by a satd. heterocyclic moiety or aminoalkyl heterocyclic group. These compds. exhibit anti-cancer, anti-inflammatory and/or anti-proliferative activities. Methods of prepn., pharmaceutical compns. contg. the compds. and methods of treating cancer, inflammatory and/or autoimmune disorders employing the compds. are described.

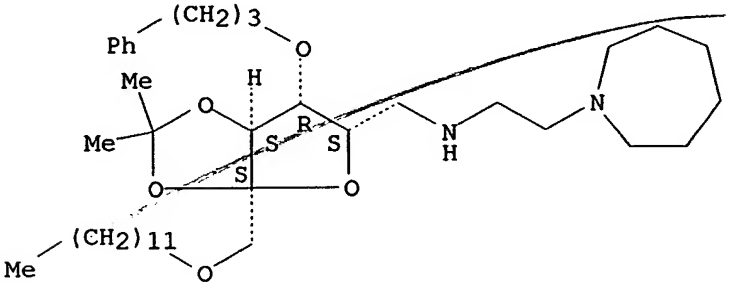
IT **185064-92-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)
(diisopropylidene xylohexulofuranosonic acid deriv. prepn. and use in treatment of inflammatory and autoimmune disorders and cancer)

RN 185064-92-0 HCAPLUS

CN .alpha.-L-Sorbofuranose, 6-deoxy-1-O-dodecyl-6-[[2-(hexahydro-1H-azepin-1-yl)ethyl]amino]-2,3-O-(1-methylethylidene)-4-O-(3-phenylpropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



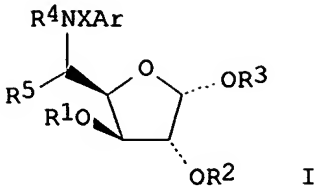
L4 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:801406 HCAPLUS
DOCUMENT NUMBER: 123:228781
TITLE: Preparation of 5,6-dideoxy-5-aminoidose and 6-deoxy-6-aminoglucose derivatives having immunomodulatory, antiinflammatory, and antiproliferative activity.
INVENTOR(S): Thomson, David S.; Lawler, Thomas P. Iii
PATENT ASSIGNEE(S): Greenwich Pharmaceuticals Incorp., USA
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9428910	A1	19941222	WO 1994-US6429	19940610
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9471019	A1	19950103	AU 1994-71019	19940610
EP 715519	A1	19960612	EP 1994-920109	19940610
EP 715519	B1	20030502		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CN 1125398	A	19960626	CN 1994-192417	19940610
JP 09501148	T2	19970204	JP 1994-502058	19940610
US 6060453	A	20000509	US 1999-394434	19990913

PRIORITY APPLN. INFO.:
US 1993-75323 A 19930611
US 1994-257258 A 19940608
WO 1994-US6429 W 19940610

US 1995-537288 B1 19950929
US 1997-938019 B1 19970912

OTHER SOURCE(S): MARPAT 123:228781
GI



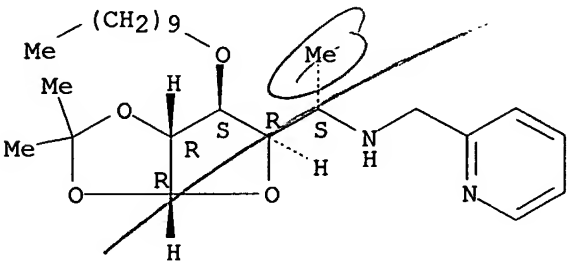
I

AB Title compds. [I; R1 = alkyl, alkylcycloalkyl; R2R3 = atoms to form an acetal protecting group; Ar = (substituted) imidazolyl, furyl, pyrrolyl, 1,3-benzodioxol-5-ylmethyl, pyridinyl, thienyl, naphthyl, Ph; R4 = H, alkyl; X = bond, alkylene; R4XN = 5-7 membered heterocycle fused to Ar; R5 = Me, OH], were prepd. Thus, 1,2-O-isopropylidene-3-O-heptyl-6-O-tosyl-.alpha.,D-glucofuranose (prepn. given) was stirred with 2-aminomethylpyridine at 75-80.degree. to give 1,2-O-isopropylidene-3-O-heptyl-6-deoxy-6-N[(2-pyridinylmethyl)amino]-.alpha.,D-glucofuranose. The latter was highly active in the mouse arachidonic acid ear assay, and showed statistically significant inhibition of mixed lymphocyte responsiveness in mice.

IT **167981-31-9P 167981-32-0P 167981-33-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 5,6-dideoxy-5-aminoidose and 6-deoxy-6-aminoglucose derivs. having immunomodulatory, antiinflammatory, and antiproliferative activity)

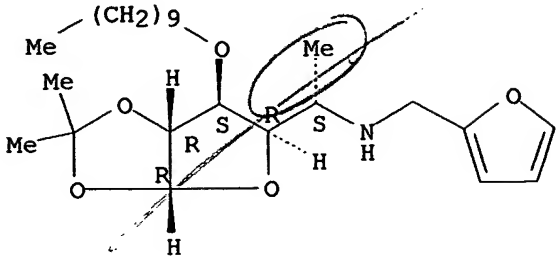
RN 167981-31-9 HCAPLUS
CN .beta.-L-Idofuranose, 5,6-dideoxy-3-O-decyl-1,2-O-(1-methylethylidene)-5-[(2-pyridinylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



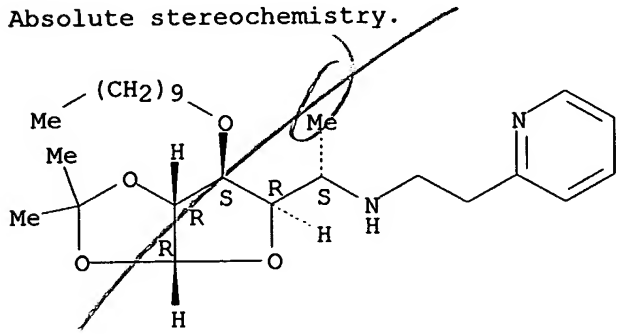
RN 167981-32-0 HCAPLUS
CN .beta.-L-Idofuranose, 5,6-dideoxy-3-O-decyl-5-[(2-furanylmethyl)amino]-1,2-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 167981-33-1 HCAPLUS
CN .beta.-L-Idofuranose, 5,6-dideoxy-3-O-decyl-1,2-O-(1-methylethylidene)-5-[[2-(2-pyridinyl)ethyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:426550 HCAPLUS
DOCUMENT NUMBER: 122:188017
TITLE: Preparation of pentose monosaccharide derivatives as antiproliferative and antiinflammatory compounds
INVENTOR(S): Akhtar, M. Nayeem; Thomson, David S.; Arora, Sudershan K.
PATENT ASSIGNEE(S): Greenwich Pharmaceuticals Inc., USA
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

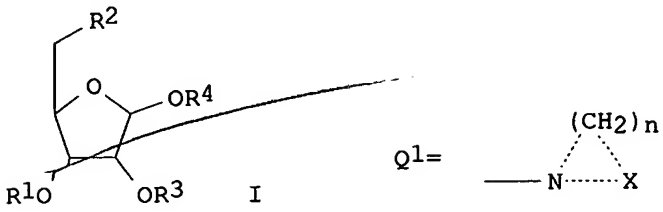
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9411381	A1	19940526	WO 1993-US10134	19931028
W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5432163	A	19950711	US 1992-975700	19921113
IL 107427	A1	19990312	IL 1993-107427	19931027
CA 2149205	AA	19940526	CA 1993-2149205	19931028

AU 9454478	A1	19940608	AU 1994-54478	19931028
ZA 9308049	A	19940722	ZA 1993-8049	19931028
EP 668866	A1	19950830	EP 1993-924998	19931028
EP 668866	B1	19970730		
R: DE, FR, GB, NL				
JP 08506321	T2	19960709	JP 1993-512098	19931028
CN 1091745	A	19940907	CN 1993-114265	19931105
CN 1034217	B	19970312		
CN 1163270	A	19971029	CN 1996-113413	19960911
CN 1055292	B	20000809		

PRIORITY APPLN. INFO.: US 1992-975700 A 19921113
WO 1993-US10134 W 19931028

OTHER SOURCE(S): MARPAT 122:188017

GI



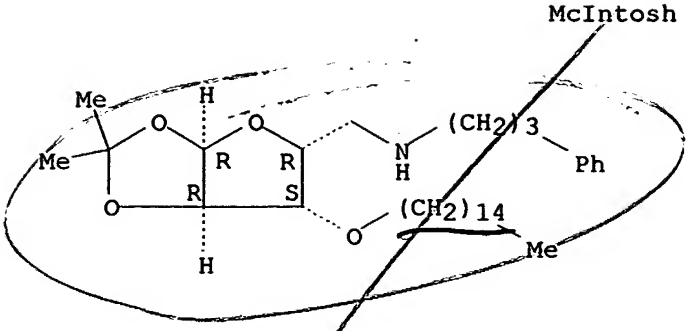
AB Title compds. I (R1 = C5-15 alkyl; R2 = RHN, R"R'N(CH2)pQCH(CH2)mNH, R"R'N(CH2)pQCH(CH2)mO wherein R = C3-8-alkyl, hydroxyalkyl, cyclohexyl-C1-5 alkyl, Ph-C2-5 alkyl, pyridinyl-C1-5 alkyl, R', R" = H, alkyl, Q = H, Me, Et, HO, m = 1-4, p = 0-4, R'R"N = Q1 wherein X = H2C, HN, O, n = 3-6, Q1; R3R4 = acetal protective group) or salt thereof, useful in treatment of inflammation and autoimmune disorders (no data), are prepd. To 1,2- O-isopropylidene-3-O-heptyl-.alpha.,D-glucofuranose in aq. dioxane was added aq. NaIO4 to give an oil which was treated with NaBH4 to give 1,2-O-isopropylidene-3-O-heptyl-.alpha.,D-xylofuranose which in 2 steps was coverted to 1,2-O-isopropylidene-3-O-heptyl-5-deoxy-5-pyrrolidinyl-.alpha.,D-xylofuranose.

IT **161632-47-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of pentose monosaccharide derivs. as antiproliferative and antiinflammatory compds.)

RN 161632-47-9 HCAPLUS

CN .alpha.-D-Xylofuranose, 5-deoxy-1,2-O-(1-methylethylidene)-3-O-pentadecyl-5-[(3-phenylpropyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

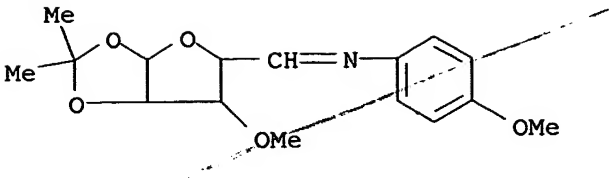


L4 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1991:207603 HCAPLUS
DOCUMENT NUMBER: 114:207603
TITLE: The four-carbon elongation of aldehydo sugars using 2-(trimethylsiloxy)furan: a butenolide route to higher monosaccharides
AUTHOR(S): Casiraghi, Giovanni; Colombo, Lino; Rassu, Gloria; Spanu, Pietro
CORPORATE SOURCE: Dip. Chim., Univ. Sassari, Sassari, I-07100, Italy
SOURCE: Journal of Organic Chemistry (1990), 55(9), 2565-7
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 114:207603
GI

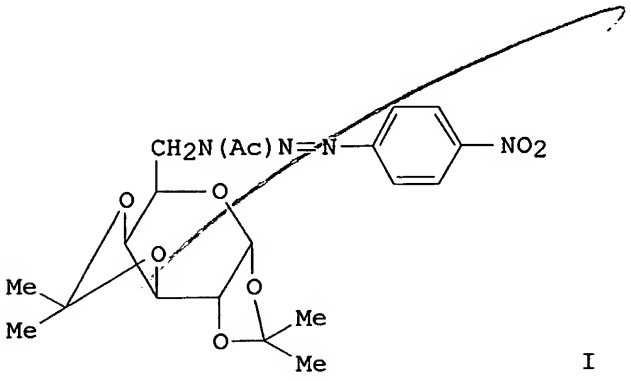
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Treatment of 2-(trimethylsiloxy)furan with the aldehydo- or imino-sugar derivs. I (X = O, R1R3 = OCMe2O, R2 = R5 = H, R4 = OMe; R1 = OSiMe2CMe3, R2R4 = OCMe2O, R3 = R5 = H; R1 = CH2OCH2Ph, R2 = R5 = OCH2Ph R3 = R4 = H; X = NC6H4OMe-4, R1R3 = OCMe2O, R2 = R5 = H, R4 = OMe) in CH2Cl2 at -80.degree. in the presence of 1 equiv of BF3.Et2O gave the .gamma.-lactones II with very high margin of diastereoselection, accompanied by <5% of the C(4) epimers. The stereodisposition of the two newly formed stereogenic centers in II was established as 4,5-threo:5,6-erythro- based upon mechanistic, rotationale, 1H-NMR spectra and x-ray crystal data of II (R1R3 = OCMe2O, R2 = R5 = H, R4 = OMe, X = O). The utility of II as chirons was exemplified by the conversion of II (R1R3 = OCMe2O) R2 = R5 = H, R4 = OMe, X = O) into aldoses III (R6 = CHO, CH2OH) via the stereospecific anti-selective cis-dihydroxylation of the lactone double bond, followed by the reductive manipulation of the lactone functionality.

IT **126378-36-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and stereospecific condensation of, with siloxyfuran)
RN 126378-36-7 HCAPLUS
CN .alpha.-D-Xylofuranose, 5-deoxy-5-[(4-methoxyphenyl)imino]-3-O-methyl-1,2-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)



L4 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1985:481272 HCAPLUS
DOCUMENT NUMBER: 103:81272
TITLE: Some physicochemical and biological properties of triazeno sugars
AUTHOR(S): Tronchet, Jean M. J.; Barbalat-Rey, Francoise; Tronchet, Jeannine F.; Rachidzadeh, Faranak
CORPORATE SOURCE: Inst. Chim. Pharm., Univ. Geneva, Geneva, 1211, Switz.
SOURCE: Journal of Carbohydrate Chemistry (1985), 4(2), 193-204
CODEN: JCACDM; ISSN: 0732-8303
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



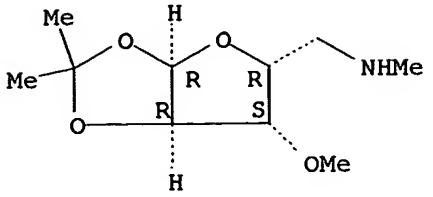
I

AB Replacement of the alkyl group of 1-aryl-3-alkyltriazenes with a sugar moiety did not significantly modify their tautomeric behavior. The same replacement done on 1-aryl-3-alkyl-3-methyl-triazenes did not affect to any large extent their rotameric properties. In contrast, the most prominent biol. properties, anticancer activity and toxicity, of 1-aryl-3-methyltriazenes disappeared on replacement of the Me group with a sugar moiety. Unexpectedly, the N-acetyltriazene I [63108-78-1] was highly cytotoxic.

IT **64775-20-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with carbomethoxybenzenediazonium chloride and carboethoxybenzenediazonium chloride)

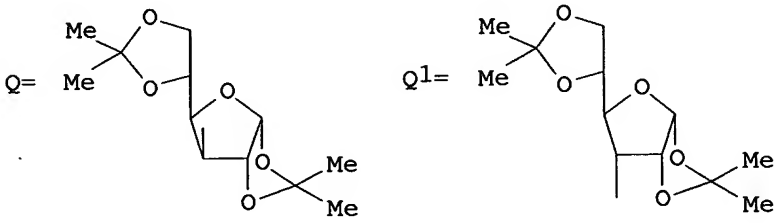
RN 64775-20-8 HCAPLUS
CN .alpha.-D-Xylofuranose, 5-deoxy-3-O-methyl-5-(methylamino)-1,2-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

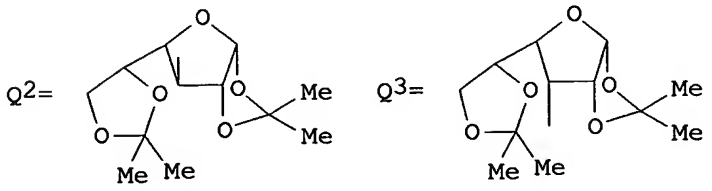
Absolute stereochemistry.

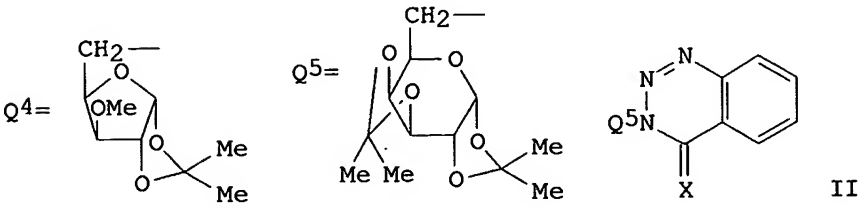


L4 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1979:491893 HCAPLUS
DOCUMENT NUMBER: 91:91893
TITLE: Triazene and benzotriazine derivatives of sugars
AUTHOR(S): Tronchet, Jean M. J.; Rachidzadeh, Faranak
CORPORATE SOURCE: Inst. Chim. Pharm., Univ. Geneve, Geneva, CH-1211/4, Switz.
SOURCE: Helvetica Chimica Acta (1979), 62(4), 971-7
CODEN: HCACAV; ISSN: 0018-019X
DOCUMENT TYPE: Journal
LANGUAGE: French
GI



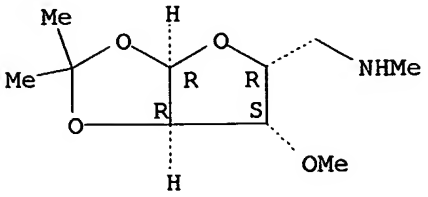




AB RNR1N:NC6H4NO2-4 (I, R = Q-Q5, R1 = H, Me) were obtained by treating all RNHR1 with 4-O2NC6H4N2+. I (R1 = Ac) were obtained by acetylating I (R1 = H). 2-Q5N:NNHC6H4CO2Me was similarly prepd. and cyclized by NaOMe to II (X = O). II (X = CH2) was obtained by treating Q5NH2 with 2-AcC6H4N2+.

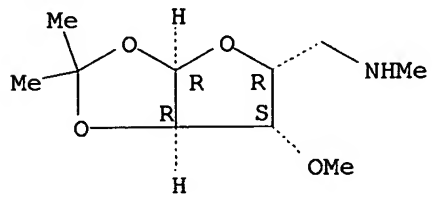
IT **64775-20-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with nitrobenzenediazonium salt)
RN 64775-20-8 HCAPLUS
CN .alpha.-D-Xylofuranose, 5-deoxy-3-O-methyl-5-(methylamino)-1,2-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



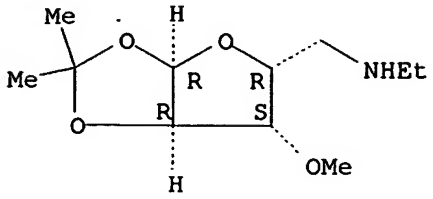
L4 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1977:584858 HCAPLUS
DOCUMENT NUMBER: 87:184858
TITLE: Synthesis of different types of amino sugars using reductive amination reactions
AUTHOR(S): Tronchet, Jean M. J.; Baehler, Bruno; Zumwald, Jean Bernard
CORPORATE SOURCE: Inst. Chim. Pharm., Univ. Geneva, Geneva, Switz.
SOURCE: Helvetica Chimica Acta (1977), 60(6), 1932-4
CODEN: HCACAV; ISSN: 0018-019X
DOCUMENT TYPE: Journal
LANGUAGE: French
AB Treating aldehydo or keto sugars with primary or secondary amines and H2 over Pd/C gave 67-70% of the expected secondary or tertiary amino sugars. Using benzylamine gave primary amines, with hydrogenolysis occurring during the reaction.
IT **64775-20-8P 64775-21-9P 64775-22-0P**
64775-25-3P 64775-26-4P 64775-28-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 64775-20-8 HCAPLUS
CN .alpha.-D-Xylofuranose, 5-deoxy-3-O-methyl-5-(methylamino)-1,2-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



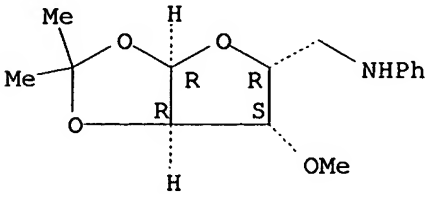
RN 64775-21-9 HCAPLUS
CN .alpha.-D-Xylofuranose, 5-deoxy-5-(ethylamino)-3-O-methyl-1,2-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



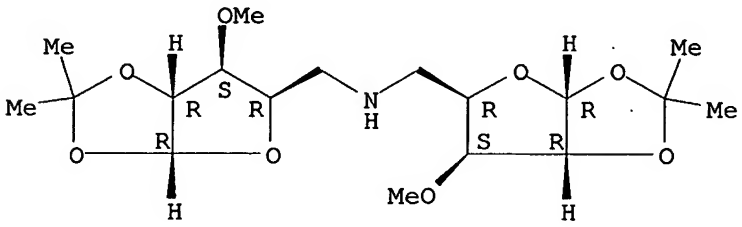
RN 64775-22-0 HCAPLUS
CN .alpha.-D-Xylofuranose, 5-deoxy-3-O-methyl-1,2-O-(1-methylethylidene)-5-(phenylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

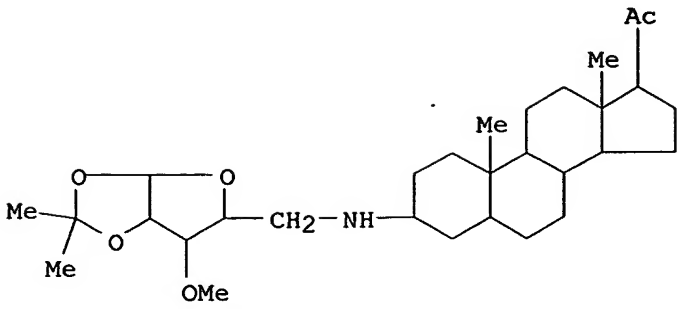


RN 64775-25-3 HCAPLUS
CN .alpha.-D-Xylofuranose, 5,5'-iminobis[5-deoxy-3-O-methyl-1,2-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

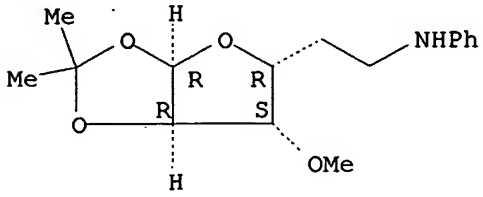


RN 64775-26-4 HCAPLUS
CN .alpha.-D-Xylofuranose, 5-deoxy-3-O-methyl-1,2-O-(1-methylethylidene)-5-[(3.beta.,5.beta.)-(20-oxopregnan-3-yl)amino]- (9CI) (CA INDEX NAME)



RN 64775-28-6 HCAPLUS
CN .alpha.-D-xylo-Hexofuranose, 5,6-dideoxy-3-O-methyl-1,2-O-(1-methylethylidene)-6-(phenylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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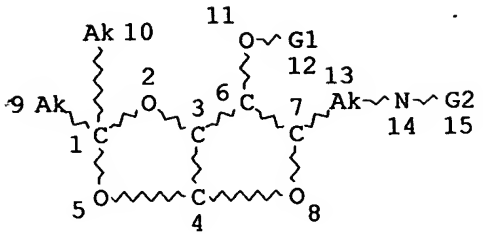

Ak @16 Ak Cb @17 18 Ak @19 Cy @20

Ak Cy @21 22 O Cb @23 24 Ak O Cb @25 26 27

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VAR G2=19/20/21/23/25
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CONNECT IS E2  RC AT  13
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CONNECT IS E2  RC AT  17
CONNECT IS E1  RC AT  19
CONNECT IS E2  RC AT  21
CONNECT IS E2  RC AT  25
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GGCAT   IS UNS  AT  18
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M6 C  AT  18

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  27

STEREO ATTRIBUTES: NONE
L7             4 SEA FILE=MARPAT SSS FUL L1
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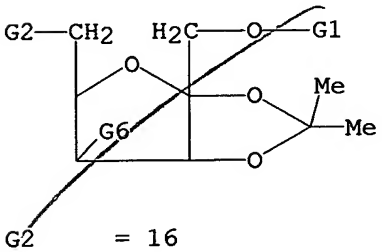
=> d ibib abs fqhit l7 1-4

L7 ANSWER 1 OF 4 MARPAT COPYRIGHT 2003 ACS
ACCESSION NUMBER: 126:42715 MARPAT
TITLE: Derivatives of 2,3:4,6-di-O-isopropylidene-.alpha.-L-xylo-2-hexulofuranosonic acid
INVENTOR(S): Arora, Sudershan K.; Gupta, Manoj K.; Lukos, Pushappam; Kumar, Ravinder; Sawhney, Shanti N.
PATENT ASSIGNEE(S): Chemora Pharmochem, USA
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9635431	A1	19961114	WO 1996-US6124	19960506
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
US 5637570	A	19970610	US 1995-437378	19950509
AU 9656354	A1	19961129	AU 1996-56354	19960506
PRIORITY APPLN. INFO.:			US 1995-437378	19950509
			WO 1996-US6124	19960506

AB Di- and trisubstituted derivs. of 2,3:4,6-di-O-isopropylidene-.alpha.-L-xylo-2-hexulofuranosonic acid are provided in which there is .gtoreq.1 alkyl group at position 1; position 4 is occupied by an OH, O-alkylamino, or O-alkylaminoheterocyclic moiety; and the OH group at position 6 is replaced by a satd. heterocyclic moiety or aminoalkyl heterocyclic group. These compds. exhibit anti-cancer, anti-inflammatory and/or anti-proliferative activities. Methods of prepn., pharmaceutical compns. contg. the compds. and methods of treating cancer, inflammatory and/or autoimmune disorders employing the compds. are described.

MSTR 1



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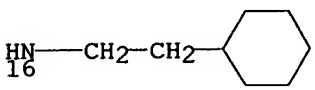
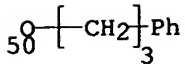


G6 = 50



DER: and physiologically acceptable salts
MPL: claim 1

L7 ANSWER 2 OF 4 MARPAT COPYRIGHT 2003 ACS
ACCESSION NUMBER: 123:228781 MARPAT
TITLE: Preparation of 5,6-dideoxy-5-aminoidose and 6-deoxy-6-aminoglucose derivatives having immunomodulatory, antiinflammatory, and antiproliferative activity.
INVENTOR(S): Thomson, David S.; Lawler, Thomas P. Iii
PATENT ASSIGNEE(S): Greenwich Pharmaceuticals Incorp., USA
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9428910	A1	19941222	WO 1994-US6429	19940610
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9471019	A1	19950103	AU 1994-71019	19940610
EP 715519	A1	19960612	EP 1994-920109	19940610
EP 715519	B1	20030502		
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CN 1125398	A	19960626	CN 1994-192417	19940610
JP 09501148	T2	19970204	JP 1994-502058	19940610
US 6060453	A	20000509	US 1999-394434	19990913
PRIORITY APPLN. INFO.:			US 1993-75323	19930611
			US 1994-257258	19940608
			WO 1994-US6429	19940610
			US 1995-537288	19950929
			US 1997-938019	19970912

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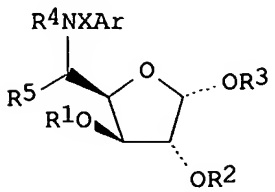
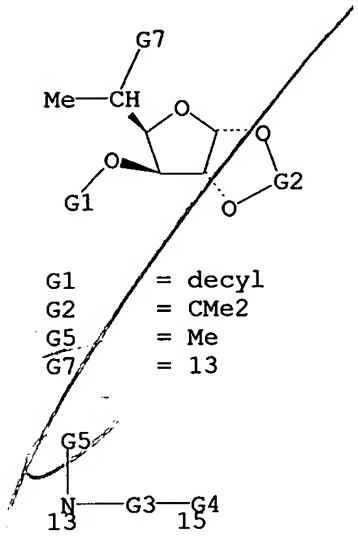


I

AB Title compds. [I; R1 = alkyl, alkylcycloalkyl; R2R3 = atoms to form an acetal protecting group; Ar = (substituted) imidazolyl, furyl, pyrrolyl, 1,3-benzodioxol-5-ylmethyl, pyridinyl, thienyl, naphthyl, Ph; R4 = H, alkyl; X = bond, alkylene; R4XN = 5-7 membered heterocycle fused to Ar; R5 = Me, OH], were prepd. Thus, 1,2-O-isopropylidene-3-O-heptyl-6-O-tosyl-.alpha.,D-glucofuranose (prepn. given) was stirred with 2-aminomethylpyridine at 75-80.degree. to give 1,2-O-isopropylidene-3-O-heptyl-6-deoxy-6-N[(2-pyridinylmethyl)amino]-.alpha.,D-glucofuranose. The latter was highly active in the mouse arachidonic acid ear assay, and showed statistically significant inhibition of mixed lymphocyte responsiveness in mice.

MSTR 1



G1 = decyl
G2 = CMe2
G5 = Me
G7 = 13

DER: or physiologically acceptable salts
MPL: claim 1

L7 ANSWER 3 OF 4 MARPAT COPYRIGHT 2003 ACS
ACCESSION NUMBER: 122:188017 MARPAT
TITLE: Preparation of pentose monosaccharide derivatives as antiproliferative and antiinflammatory compounds
INVENTOR(S): Akhtar, M. Nayeem; Thomson, David S.; Arora, Sudershan K.
PATENT ASSIGNEE(S): Greenwich Pharmaceuticals Inc., USA
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9411381	A1	19940526	WO 1993-US10134	19931028

W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, UZ, VN
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

US 5432163	A	19950711	US 1992-975700	19921113
IL 107427	A1	19990312	IL 1993-107427	19931027
CA 2149205	AA	19940526	CA 1993-2149205	19931028
AU 9454478	A1	19940608	AU 1994-54478	19931028
ZA 9308049	A	19940722	ZA 1993-8049	19931028
EP 668866	A1	19950830	EP 1993-924998	19931028
EP 668866	B1	19970730		
R: DE, FR, GB, NL				
JP 08506321	T2	19960709	JP 1993-512098	19931028
CN 1091745	A	19940907	CN 1993-114265	19931105
CN 1034217	B	19970312		
CN 1163270	A	19971029	CN 1996-113413	19960911
CN 1055292	B	20000809		

PRIORITY APPLN. INFO.: US 1992-975700 19921113
WO 1993-US10134 19931028

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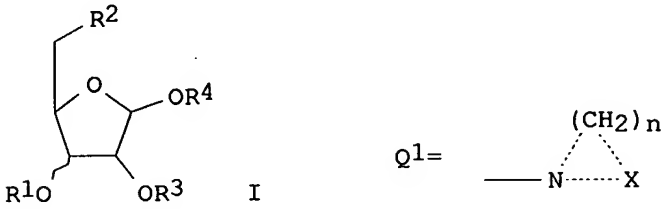
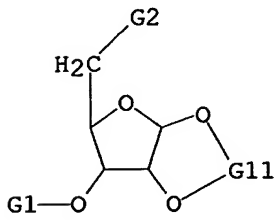


AB Title compds. I (R1 = C5-15 alkyl; R2 = RHN, R"R'N(CH2)pQCH(CH2)mNH, R"R'N(CH2)pQCH(CH2)mO wherein R = C3-8-alkyl, hydroxyalkyl, cyclohexyl-C1-5 alkyl, Ph-C2-5 alkyl, pyridinyl-C1-5 alkyl, R', R" = H, alkyl, Q = H, Me, Et, HO, m = 1-4, p = 0-4, R'R"N = Q1 wherein X = H2C, HN, O, n = 3-6, Q1; R3R4 = acetal protective group) or salt thereof, useful in treatment of inflammation and autoimmune disorders (no data), are prepd. To 1,2- O-isopropylidene-3-O-heptyl-.alpha.,D-glucofuranose in aq. dioxane was added aq. NaIO4 to give an oil which was treated with NaBH4 to give 1,2-O-isopropylidene-3-O-heptyl-.alpha.,D-xylofuranose which in 2 steps was coverted to 1,2-O-isopropylidene-3-O-heptyl-5-deoxy-5-pyrrolidinyl-.alpha.,D-xylofuranose.

MSTR 1



G1 = heptyl
G2 = 10

HN—G3
10

G3 = Bu-n
G11 = CMe2
DER: or physiologically acceptable salts
MPL: claim 1

L7 ANSWER 4 OF 4 MARPAT COPYRIGHT 2003 ACS
ACCESSION NUMBER: 114:247656 MARPAT
TITLE: Preparation of 3,5,6-substituted derivatives of 1,2-O-isopropylidene-.alpha.,D-glucofuranose and intermediates
INVENTOR(S): Rosen, Bruce; Arora, Sudershan K.; Thomas, Alvert V.
PATENT ASSIGNEE(S): Greenwich Pharmaceuticals, Inc., USA
SOURCE: Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 404136	A2	19901227	EP 1990-111705	19900620
EP 404136	A3	19920722		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 5010058	A	19910423	US 1989-369932	19890622
AU 9057691	A1	19910103	AU 1990-57691	19900619
NO 9002750	A	19901227	NO 1990-2750	19900620
ZA 9004783	A	19910327	ZA 1990-4783	19900620
CA 2019705	AA	19901222	CA 1990-2019705	19900622
JP 03163091	A2	19910715	JP 1990-162968	19900622
PRIORITY APPLN. INFO.:			US 1989-369932	19890622

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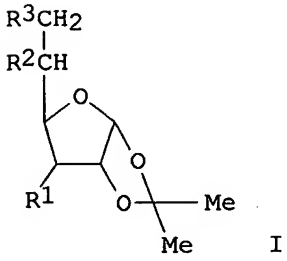
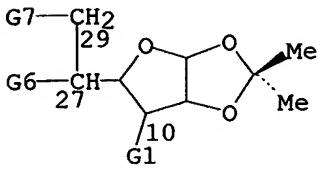


I

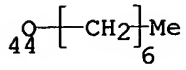
AB The title compds. [I; R1 = H, C4-11 alkoxy, OH, C.gtoreq.7 aralkyl, (CH2)xNR4R5; R2 = H, C4-7 alkoxy, MeSC(O), (CH2)xNR6R7; or R1R2 = OCMe2O; R3 = H, halo, alkylene, C.ltoreq.7 aralkyl, (substituted) NH2,

Z(CH2)xNR10R11; Z = S, NH; R4, R5, R6, R7, R10, R11 = H, OH, C1-7 alkoxy; x = 1-7], useful for treatment of inflammatory and/or autoimmune disorders such as autoimmune deficiency syndrome, psoriasis, atopic dermatitis, rheumatoid arthritis, osteoarthritis, scleroderma, and systemic lupus erythematosus, are prepd. Thus, tosylation of 1,2:3,5-di-O-isopropylidene-.alpha.-D-glucofuranose with p-MeC6H4SO2Cl in pyridine (97% yield) and amination of the resulting tosylate with 1-aminoheptane at 80-90.degree. gave 92.9% gluco-I [R1 = Me(CH2)6NH, R2R3 = OCMe2O]. I were .apprx.10-1000 times more potent than Therafectin to inhibit the Con A-stimulated proliferation of mouse T-cells.

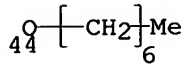
MSTR 1A



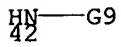
G1 = 44



G6 = 44

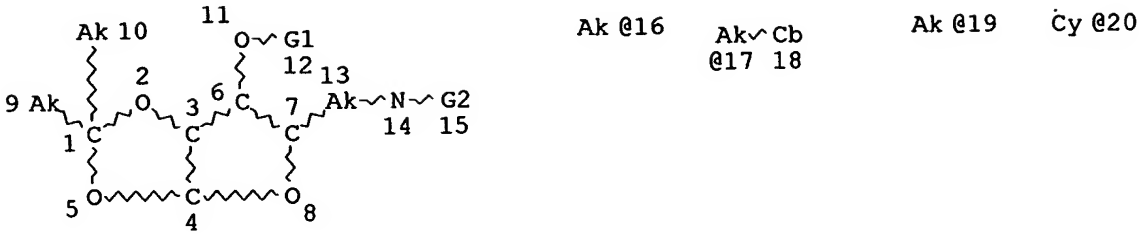


G7 = 42



G9 = heptyl
ASM: structure assumed from specific compounds in later claims
MPL: claim 1

=> d que
L1 STR



VAR G1=16/17
VAR G2=19/20/21/23/25
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 9
CONNECT IS E1 RC AT 10
CONNECT IS E2 RC AT 13
CONNECT IS E2 RC AT 14
CONNECT IS E1 RC AT 16
CONNECT IS E2 RC AT 17
CONNECT IS E1 RC AT 19
CONNECT IS E2 RC AT 21
CONNECT IS E2 RC AT 25
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 18
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M6 C AT 18

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE
L8 18 SEA FILE=BEILSTEIN SSS FUL L1
L9 18 SEA FILE=BEILSTEIN ABB=ON PLU=ON L8/COM

18 substances from 6 references

=> d qrd che phy rx 1-18

L9 ANSWER 1 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	8656944
Chemical Name (CN):	benzyl-<1-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-but-3-enyl>-amine
Autonom Name (AUN):	benzyl-<1-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-but-3-enyl>-amine
Molec. Formula (MF):	C33 H39 N O5

Molecular Weight (MW):	529.67
Lawson Number (LN):	23790, 14140, 5228
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	7331706
Tautomer ID (TAUTID):	8131828
Entry Date (DED):	2001/01/30
Update Date (DUPD):	2001/01/30

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Atom/Bond Notes:

1. CIP Descriptor: S
2. CIP Descriptor: R

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	2
RXREA	Substance is Reaction Reactant	1
RXPRO	Substance is Reaction Product	1

Reaction:

RX

Reaction ID (.ID):	8662750
Reactant BRN (.RBRN):	8650919, 969335
Reactant (.RCT):	benzyl-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethylene)-amine, allylmagnesium bromide
Product BRN (.PBRN):	8656944
Product (.PRO):	benzyl-<1-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-but-3-enyl>-amine
No. of React. Details (.NVAR):	1

Reaction Details:
RX

Reaction RID (.RID):	8662750.1
Reaction Classification (.CL):	Preparation
Yield (.YDT):	87 percent (BRN=8656944)
Solvent (.SOL):	diethyl ether
Temperature (.T):	0 - 20 Cel
Reaction Type (.TYP):	Grignard reaction

Reference(s):
1. Masson, Geraldine; Compain, Philippe; Martin, Olivier R., Org.Lett., CODEN: ORLEF7, 2(19), <2000>, 2971 - 2974; BABS-6249489

Reaction:
RX

Reaction ID (.ID):	8655448
Reactant BRN (.RBRN):	8656944
Reactant (.RCT):	benzyl-<1-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-but-3-enyl>-amine
Product BRN (.PBRN):	8654691
Product (.PRO):	2-allyl-1-benzyl-4-benzyloxy-6-benzyloxymethyl-piperidine-3,5-diol
No. of React. Details (.NVAR):	1

Reaction Details:
RX

Reaction RID (.RID):	8655448.1
Reaction Classification (.CL):	Multistage
Nr. of Stages (.SNR):	2
Stage 1	
Reagent (.RGT):	CF3COOH, H2O
Time (.TIM):	24 hour(s)
Reaction Type (.TYP):	Hydrolysis
Stage 2	
Reagent (.RGT):	NaBH3CN
Solvent (.SOL):	acetic acid
Time (.TIM):	3 hour(s)
Reaction Type (.TYP):	Reduction

Reference(s):
1. Masson, Geraldine; Compain, Philippe; Martin, Olivier R., Org.Lett., CODEN: ORLEF7, 2(19), <2000>, 2971 - 2974; BABS-6249489

L9 ANSWER 2 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	8655599
Chemical Name (CN):	benzyl-<1-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-allyl>-amine
Autonom Name (AUN):	benzyl-<1-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-allyl>-amine
Molec. Formula (MF):	C32 H37 N O5
Molecular Weight (MW):	515.65
Lawson Number (LN):	23789, 14140, 5228
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	heterocyclic

Constitution ID (CONSID): 7329236
Tautomer ID (TAUTID): 8130557
Entry Date (DED): 2001/01/30
Update Date (DUPD): 2001/01/30

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
Atom/Bond Notes:
1. CIP Descriptor: S
2. CIP Descriptor: R

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	2
RXREA	Substance is Reaction Reactant	1
RXPRO	Substance is Reaction Product	1

Reaction:
RX
Reaction ID (.ID): 8623001
Reactant BRN (.RBRN): 8650919, 3535841
Reactant (.RCT): benzyl-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethylene)-amine, vinylmagnesium bromide
Product BRN (.PBRN): 8655599
Product (.PRO): benzyl-<1-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-allyl>-amine
No. of React. Details (.NVAR): 1

Reaction Details:
RX
Reaction RID (.RID): 8623001.1
Reaction Classification (.CL): Preparation

Yield (.YDT): 74 percent (BRN=8655599)
Solvent (.SOL): diethyl ether
Temperature (.T): 0 - 20 Cel
Reaction Type (.TYP): Grignard reaction
Reference(s):
1. Masson, Geraldine; Compain, Philippe; Martin, Olivier R., Org.Lett., CODEN: ORLEF7, 2(19), <2000>, 2971 - 2974; BABS-6249489

Reaction:
RX
Reaction ID (.ID): 8655005
Reactant BRN (.RBRN): 8655599
Reactant (.RCT): benzyl-<1-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-allyl>-amine
Product BRN (.PBRN): 8652570
Product (.PRO): 1-benzyl-4-benzyloxy-2-benzyloxymethyl-6-vinyl-piperidine-3,5-diol
No. of React. Details (.NVAR): 1

Reaction Details:
RX
Reaction RID (.RID): 8655005.1
Reaction Classification (.CL): Multistage
Nr. of Stages (.SNR): 2
Stage 1
Reagent (.RGT): CF3COOH, H2O
Time (.TIM): 24 hour(s)
Reaction Type (.TYP): Hydrolysis
Stage 2
Reagent (.RGT): NaBH3CN
Solvent (.SOL): acetic acid
Time (.TIM): 3 hour(s)
Reaction Type (.TYP): Reduction
Reference(s):
1. Masson, Geraldine; Compain, Philippe; Martin, Olivier R., Org.Lett., CODEN: ORLEF7, 2(19), <2000>, 2971 - 2974; BABS-6249489

L9 ANSWER 3 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN): 8655598
Chemical Name (CN): benzyl-<1-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-allyl>-amine
Autonom Name (AUN): benzyl-<1-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-allyl>-amine
Molec. Formula (MF): C32 H37 N O5
Molecular Weight (MW): 515.65
Lawson Number (LN): 23789, 14140, 5228
File Segment (FS): Stereo compound
Compound Type (CTYPE): heterocyclic
Constitution ID (CONSID): 7329236
Tautomer ID (TAUTID): 8130556
Entry Date (DED): 2001/01/30
Update Date (DUPD): 2001/01/30

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Atom/Bond Notes:

1. CIP Descriptor: S
2. CIP Descriptor: R

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

Reaction:

RX

Reaction ID (.ID):	8623000
Reactant BRN (.RBRN):	8650919, 3535841
Reactant (.RCT):	benzyl-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethylene)-amine, vinylmagnesium bromide
Product BRN (.PBRN):	8655598
Product (.PRO):	benzyl-<1-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-allyl>-amine
No. of React. Details (.NVAR):	1

Reaction Details:

RX

Reaction RID (.RID):	8623000.1
Reaction Classification (.CL):	Preparation
Yield (.YDT):	65 percent (BRN=8655598)
Reagent (.RGT):	BF3*OEt2
Solvent (.SOL):	diethyl ether
Temperature (.T):	-78 - -10 Cel
Reaction Type (.TYP):	Grignard reaction

Reference(s):
1. Masson, Geraldine; Compain, Philippe; Martin, Olivier R., Org.Lett., CODEN: ORLEF7, 2(19), <2000>, 2971 - 2974; BABS-6249489

L9 ANSWER 4 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	8650919
Chemical Name (CN):	benzyl-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethylene)-amine
Autonom Name (AUN):	benzyl-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethylene)-amine
Molec. Formula (MF):	C30 H33 N O5
Molecular Weight (MW):	487.59
Lawson Number (LN):	23650, 14140, 5228
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	7325608
Tautomer ID (TAUTID):	8135248
Entry Date (DED):	2001/01/30
Update Date (DUPD):	2001/01/30

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
Atom/Bond Notes:
1. CIP Descriptor: S
2. CIP Descriptor: R

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	4
RXREA	Substance is Reaction Reactant	3
RXPRO	Substance is Reaction Product	1

Reaction:
RX

Reaction ID (.ID):	8638612
Reactant BRN (.RBRN):	8640548, 741984
Reactant (.RCT):	6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxole-5-carbaldehyde, benzylamine
Product BRN (.PBRN):	8650919
Product (.PRO):	benzyl-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethylene)-amine
No. of React. Details (.NVAR):	1

Reaction Details:
RX

Reaction RID (.RID):	8638612.1
Reaction Classification (.CL):	Preparation
Reagent (.RGT):	molecular sieves
Temperature (.T):	0 Cel
Reaction Type (.TYP):	Condensation

Reference(s):
1. Masson, Geraldine; Compain, Philippe; Martin, Olivier R., Org.Lett., CODEN: ORLEF7, 2(19), <2000>, 2971 - 2974; BABS-6249489

Reaction:
RX

Reaction ID (.ID):	8662750
Reactant BRN (.RBRN):	8650919, 969335
Reactant (.RCT):	benzyl-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethylene)-amine, allylmagnesium bromide
Product BRN (.PBRN):	8656944
Product (.PRO):	benzyl-<1-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-but-3-enyl>-amine
No. of React. Details (.NVAR):	1

Reaction Details:
RX

Reaction RID (.RID):	8662750.1
Reaction Classification (.CL):	Preparation
Yield (.YDT):	87 percent (BRN=8656944)
Solvent (.SOL):	diethyl ether
Temperature (.T):	0 - 20 Cel
Reaction Type (.TYP):	Grignard reaction

Reference(s):
1. Masson, Geraldine; Compain, Philippe; Martin, Olivier R., Org.Lett., CODEN: ORLEF7, 2(19), <2000>, 2971 - 2974; BABS-6249489

Reaction:
RX

Reaction ID (.ID):	8623001
Reactant BRN (.RBRN):	8650919, 3535841
Reactant (.RCT):	benzyl-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-

5-ylmethylene)-amine, vinylmagnesium bromide
Product BRN (.PBRN): 8655599
Product (.PRO): benzyl-<1-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-allyl>-amine
No. of React. Details (.NVAR): 1

Reaction Details:
RX
Reaction RID (.RID): 8623001.1
Reaction Classification (.CL): Preparation
Yield (.YDT): 74 percent (BRN=8655599)
Solvent (.SOL): diethyl ether
Temperature (.T): 0 - 20 Cel
Reaction Type (.TYP): Grignard reaction
Reference(s):
1. Masson, Geraldine; Compain, Philippe; Martin, Olivier R., Org.Lett., CODEN: ORLEF7, 2(19), <2000>, 2971 - 2974; BABS-6249489

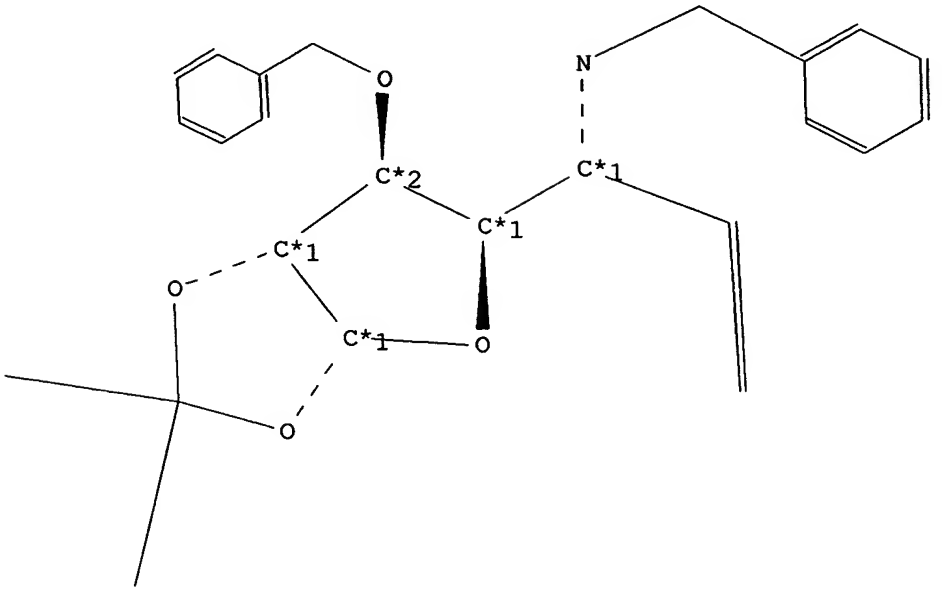
Reaction:
RX
Reaction ID (.ID): 8623000
Reactant BRN (.RBRN): 8650919, 3535841
Reactant (.RCT): benzyl-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethylene)-amine, vinylmagnesium bromide
Product BRN (.PBRN): 8655598
Product (.PRO): benzyl-<1-(6-benzyloxy-3a-benzyloxymethyl-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-allyl>-amine
No. of React. Details (.NVAR): 1

Reaction Details:
RX
Reaction RID (.RID): 8623000.1
Reaction Classification (.CL): Preparation
Yield (.YDT): 65 percent (BRN=8655598)
Reagent (.RGT): BF3*OEt2
Solvent (.SOL): diethyl ether
Temperature (.T): -78 - -10 Cel
Reaction Type (.TYP): Grignard reaction
Reference(s):
1. Masson, Geraldine; Compain, Philippe; Martin, Olivier R., Org.Lett., CODEN: ORLEF7, 2(19), <2000>, 2971 - 2974; BABS-6249489

L9 ANSWER 5 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN): 8578747
Chemical Name (CN): 3-O-benzyl-5-deoxy-5-benzylamino-5-vinyl-1,2-O-isopropylidene-.alpha.-D-gluco-1,4-pentofuranoside
Autonom Name (AUN): benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-allyl>-amine

Molec. Formula (MF):	C24 H29 N O4
Molecular Weight (MW):	395.50
Lawson Number (LN):	23787, 14140, 5228
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	7263590
Tautomer ID (TAUTID):	8059093
Entry Date (DED):	2000/10/24
Update Date (DUPD):	2000/10/24



Atom/Bond Notes:
1. CIP Descriptor: R
2. CIP Descriptor: S

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
NMR	Nuclear Magnetic Resonance	3
ORP	Optical Rotatory Power	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

Optical Rotatory Power:

Value (ORP) (deg)	Type (.TYP)	Concentr. (.C)	Solvent (.SOL)	Wavelen. (.W) (nm)	Temp. (.T) (Cel)	Ref.
-11.3	[alpha]	0.50 g/100ml	CHCl3	589	20	1

Reference(s):

1. Merino, Pedro; Anoro, Sonia; Franco, Santiago; Gascon, Jose M.; Martin, Victor; Merchan, Francisco L.; Revuelta, Julia; Tejero, Tomas; Tunon, Victoria, Synth.Commun., CODEN: SYNCAV, 30(16), <2000>, 2989 - 3022; BABS-6236346

(2)

Nuclear Magnetic Resonance:

NMR

Coupling Nuclei (.NUI): 1H-1H
Solvents (.SOL): CDCl3
Temperature (.T): 20 Cel
Frequency (.F): 300 MHz
Reference(s):

1. Merino, Pedro; Anoro, Sonia; Franco, Santiago; Gascon, Jose M.; Martin, Victor; Merchan, Francisco L.; Revuelta, Julia; Tejero, Tomas; Tunon, Victoria, Synth.Commun., CODEN: SYNCAV, 30(16), <2000>, 2989 - 3022; BABS-6236346

NMR

Description (.KW): Chemical shifts
Nucleus (.NUC): 13C
Solvents (.SOL): CDCl3
Temperature (.T): 20 Cel
Frequency (.F): 75.5 MHz
Reference(s):

1. Merino, Pedro; Anoro, Sonia; Franco, Santiago; Gascon, Jose M.; Martin, Victor; Merchan, Francisco L.; Revuelta, Julia; Tejero, Tomas; Tunon, Victoria, Synth.Commun., CODEN: SYNCAV, 30(16), <2000>, 2989 - 3022; BABS-6236346

NMR

Description (.KW): Chemical shifts
Nucleus (.NUC): 1H
Solvents (.SOL): CDCl3
Temperature (.T): 20 Cel
Frequency (.F): 300 MHz
Reference(s):

1. Merino, Pedro; Anoro, Sonia; Franco, Santiago; Gascon, Jose M.; Martin, Victor; Merchan, Francisco L.; Revuelta, Julia; Tejero, Tomas; Tunon, Victoria, Synth.Commun., CODEN: SYNCAV, 30(16), <2000>, 2989 - 3022; BABS-6236346

Reaction:
RX

Reaction ID (.ID):	8594485
Reactant BRN (.RBRN):	8579866
Reactant (.RCT):	N-benzyl-3-O-benzyl-5-deoxy-5-(hydroxylamino)-5-vinyl-1,2-O-isopropylidene-.alpha.-D-gluco-1,4-pentofuranoside
Product BRN (.PBRN):	8578747
Product (.PRO):	3-O-benzyl-5-deoxy-5-benzylamino-5-vinyl-1,2-O-isopropylidene-.alpha.-D-gluco-1,4-pentofuranoside
No. of React. Details (.NVAR):	1

Reaction Details:
RX

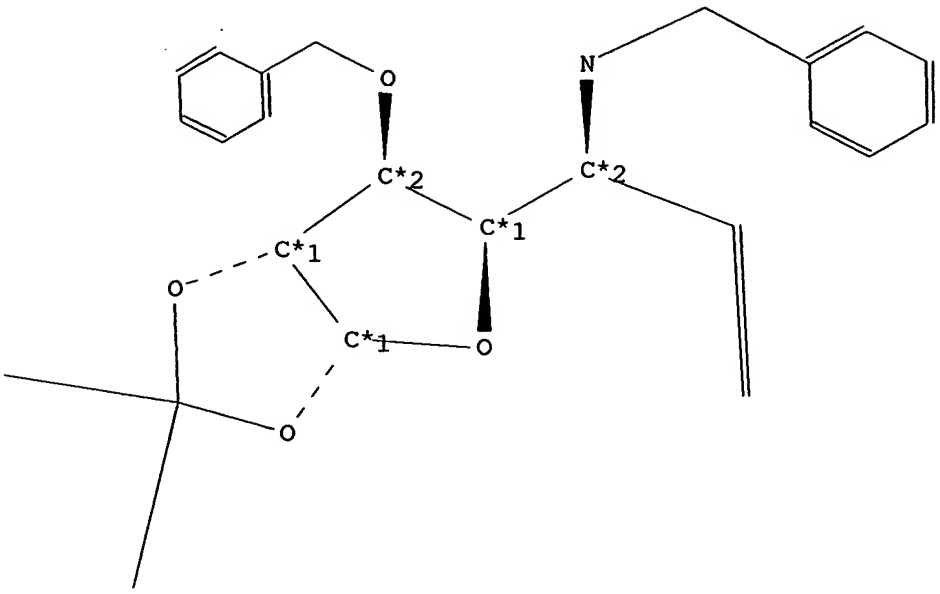
Reaction RID (.RID):	8594485.1
Reaction Classification (.CL):	Preparation
Yield (.YDT):	80 percent (BRN=8578747)
Reagent (.RGT):	copper(II) acetate, zinc dust
Solvent (.SOL):	acetic acid
Time (.TIM):	1 hour(s)
Temperature (.T):	70 Cel
Reaction Type (.TYP):	Reduction

Reference(s):

1. Merino, Pedro; Anoro, Sonia; Franco, Santiago; Gascon, Jose M.; Martin, Victor; Merchan, Francisco L.; Revuelta, Julia; Tejero, Tomas; Tunon, Victoria, Synth.Commun., CODEN: SYNCAV, 30(16), <2000>, 2989 - 3022; BABS-6236346

L9 ANSWER 6 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	8578746
Chemical Name (CN):	3-O-benzyl-5-deoxy-5-benzylamino-5-vinyl-1,2-O-isopropylidene-.beta.-L-ido-1,4-pentofuranoside
Autonom Name (AUN):	benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-allyl>-amine
Molec. Formula (MF):	C24 H29 N O4
Molecular Weight (MW):	395.50
Lawson Number (LN):	23787, 14140, 5228
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	7263590
Tautomer ID (TAUTID):	8059092
Entry Date (DED):	2000/10/24
Update Date (DUPD):	2000/10/24



Atom/Bond Notes:
1. CIP Descriptor: R
2. CIP Descriptor: S

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
NMR	Nuclear Magnetic Resonance	3
ORP	Optical Rotatory Power	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

Optical Rotatory Power:

Value	Type	Concentr.	Solvent	Wavelen.	Temp.	Ref.

(ORP) (deg)	(.TYP)	(.C)	(.SOL)	(.W) (nm)	(.T) (Cel)	
-15.2	[alpha]	0.60 g/100ml	CHCl3	589	20	1

Reference(s):
1. Merino, Pedro; Anoro, Sonia; Franco, Santiago; Gascon, Jose M.; Martin, Victor; Merchan, Francisco L.; Revuelta, Julia; Tejero, Tomas; Tunon, Victoria, Synth.Commun., CODEN: SYNCAV, 30(16), <2000>, 2989 - 3022; BABS-6236346

Nuclear Magnetic Resonance:
NMR
Coupling Nuclei (.NUI): 1H-1H
Solvents (.SOL): CDCl3
Temperature (.T): 20 Cel
Frequency (.F): 300 MHz
Reference(s):
1. Merino, Pedro; Anoro, Sonia; Franco, Santiago; Gascon, Jose M.; Martin, Victor; Merchan, Francisco L.; Revuelta, Julia; Tejero, Tomas; Tunon, Victoria, Synth.Commun., CODEN: SYNCAV, 30(16), <2000>, 2989 - 3022; BABS-6236346

NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 13C
Solvents (.SOL): CDCl3
Temperature (.T): 20 Cel
Frequency (.F): 75.5 MHz
Reference(s):
1. Merino, Pedro; Anoro, Sonia; Franco, Santiago; Gascon, Jose M.; Martin, Victor; Merchan, Francisco L.; Revuelta, Julia; Tejero, Tomas; Tunon, Victoria, Synth.Commun., CODEN: SYNCAV, 30(16), <2000>, 2989 - 3022; BABS-6236346

NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 1H
Solvents (.SOL): CDCl3
Temperature (.T): 20 Cel
Frequency (.F): 300 MHz
Reference(s):
1. Merino, Pedro; Anoro, Sonia; Franco, Santiago; Gascon, Jose M.; Martin, Victor; Merchan, Francisco L.; Revuelta, Julia; Tejero, Tomas; Tunon, Victoria, Synth.Commun., CODEN: SYNCAV, 30(16), <2000>, 2989 - 3022; BABS-6236346

Reaction:
RX
Reaction ID (.ID): 8594484
Reactant BRN (.RBRN): 8579865
Reactant (.RCT): N-benzyl-3-O-benzyl-5-deoxy-5-(hydroxylamino)-5-vinyl-1,2-O-isopropylidene-.beta.-L-ido-1,4-pentofuranoside
Product BRN (.PBRN): 8578746
Product (.PRO): 3-O-benzyl-5-deoxy-5-benzylamino-5-vinyl-1,2-O-isopropylidene-.beta.-L-ido-1,4-

pentofuranoside
No. of React. Details (.NVAR): 1

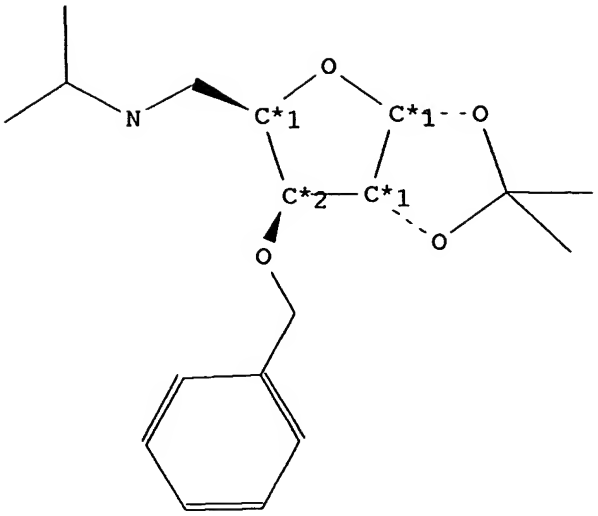
Reaction Details:
RX

Reaction RID (.RID):	8594484.1
Reaction Classification (.CL):	Preparation
Yield (.YDT):	72 percent (BRN=8578746)
Reagent (.RGT):	copper(II) acetate, zinc dust
Solvent (.SOL):	acetic acid
Time (.TIM):	1 hour(s)
Temperature (.T):	70 Cel
Reaction Type (.TYP):	Reduction

Reference(s):
1. Merino, Pedro; Anoro, Sonia; Franco, Santiago; Gascon, Jose M.; Martin, Victor; Merchan, Francisco L.; Revuelta, Julia; Tejero, Tomas; Tunon, Victoria, Synth.Commun., CODEN: SYNCAV, 30(16), <2000>, 2989 - 3022; BABS-6236346

L9 ANSWER 7 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	8002713
Chemical Name (CN):	3-O-benzyl-5-deoxy-5-isopropylamino-1,2-O-isopropylidenexylofuranose
Autonom Name (AUN):	(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-isopropyl-amine
Molec. Formula (MF):	C18 H27 N O4
Molecular Weight (MW):	321.42
Lawson Number (LN):	23776, 5228, 2836
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	6796766
Tautomer ID (TAUTID):	7531767
Beilstein Citation (BSO):	6-19
Entry Date (DED):	1999/01/25
Update Date (DUPD):	1999/01/25



Atom/Bond Notes:
1. CIP Descriptor: R
2. CIP Descriptor: S

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1
NMR	Nuclear Magnetic Resonance	3
ORP	Optical Rotatory Power	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	2
RXREA	Substance is Reaction Reactant	1
RXPRO	Substance is Reaction Product	1

Optical Rotatory Power:

Value (ORP)	Type (.TYP)	Concentr. (.C)	Solvent (.SOL)	Wavelen. (.W)	Temp. (.T)	Ref.

(deg)				(nm)	(Cel)	
-51.8	[alpha]	1.85 g/100ml	CH2Cl2	589	21.9	1

Reference(s):
1. Marsault, Eric; Just, George, Tetrahedron, CODEN: TETRAB, 53(50), <1997>, 16945-16958; BABS-6100352

(3)

Nuclear Magnetic Resonance:
NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 1H
Solvents (.SOL): CDCl3
Reference(s):
1. Marsault, Eric; Just, George, Tetrahedron, CODEN: TETRAB, 53(50), <1997>, 16945-16958; BABS-6100352

NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 13C
Solvents (.SOL): CDCl3
Reference(s):
1. Marsault, Eric; Just, George, Tetrahedron, CODEN: TETRAB, 53(50), <1997>, 16945-16958; BABS-6100352

NMR
Description (.KW): Spin-spin coupling constants
Solvents (.SOL): CDCl3
Note(s) (.COM): 1H-1H
Reference(s):
1. Marsault, Eric; Just, George, Tetrahedron, CODEN: TETRAB, 53(50), <1997>, 16945-16958; BABS-6100352

Reaction:
RX
Reaction ID (.ID): 4940478
Reactant BRN (.RBRN): 7580518, 385801
Reactant (.RCT): 5-Deoxy-5-isopropylamino-1,2-O-isopropylidene-.alpha.-D-xylofuranose, bromomethyl-benzene
Product BRN (.PBRN): 8002713
Product (.PRO): 3-O-benzyl-5-deoxy-5-isopropylamino-1,2-O-isopropylidenexylofuranose
No. of React. Details (.NVAR): 1

Reaction Details:
RX
Reaction RID (.RID): 4940478.1
Reaction Classification (.CL): Preparation
Yield (.YDT): 85 percent (BRN=8002713)
Reagent (.RGT): NaH, NaI
Solvent (.SOL): tetrahydrofuran
Other Conditions (.COND): 1.) 0 deg C, 6 h, 2.) room temperature, overnight
Reference(s):
1. Marsault, Eric; Just, George, Tetrahedron, CODEN: TETRAB, 53(50), <1997>, 16945-16958; BABS-6100352

Reaction:
RX

Reaction ID (.ID):	4946904
Reactant BRN (.RBRN):	8002713, 509751
Reactant (.RCT):	3-O-benzyl-5-deoxy-5-isopropylamino-1,2-O-isopropylidenexylofuranose, carbonochloridic acid benzyl ester
Product BRN (.PBRN):	8018433
Product (.PRO):	(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-isopropyl-carbamic acid benzyl ester
No. of React. Details (.NVAR):	1

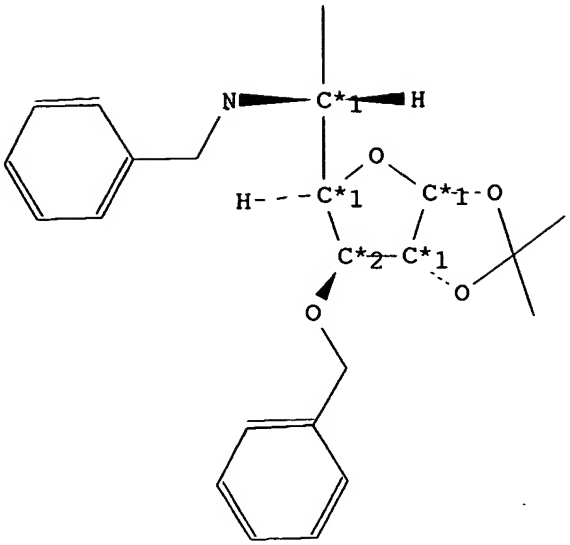
Reaction Details:
RX

Reaction RID (.RID):	4946904.1
Reaction Classification (.CL):	Preparation
Yield (.YDT):	85 percent (BRN=8018433)
Reagent (.RGT):	KHCO3
Solvent (.SOL):	tetrahydrofuran, H2O
Time (.TIM):	1.5 hour(s)
Other Conditions (.COND):	Ambient temperature

Reference(s):
1. Marsault, Eric; Just, George, Tetrahedron, CODEN: TETRAB, 53(50), <1997>, 16945-16958; BABS-6100352

L9 ANSWER 8 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	7750798
Chemical Name (CN):	benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-amine
Autonom Name (AUN):	benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-amine
Molec. Formula (MF):	C23 H29 N O4
Molecular Weight (MW):	383.49
Lawson Number (LN):	23786, 14140, 5228
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	6602721
Tautomer ID (TAUTID):	7304918
Beilstein Citation (BSO):	6-19
Entry Date (DED):	1997/11/18
Update Date (DUPD):	1997/11/18



Atom/Bond Notes:
1. CIP Descriptor: R
2. CIP Descriptor: S

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1
IR	Infrared Spectrum	1
NMR	Nuclear Magnetic Resonance	3
ORP	Optical Rotatory Power	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	2
RXREA	Substance is Reaction Reactant	1
RXPRO	Substance is Reaction Product	1

Optical Rotatory Power:

Value (ORP) (deg)	Type (.TYP)	Concentr. (.C)	Solvent (.SOL)	Wavelen. (.W) (nm)	Temp. (.T) (Cel)	Ref.
-10.3	[alpha]	1.3 g/100ml	CHCl3	589	25	1

Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

Nuclear Magnetic Resonance:

NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 1H
Solvents (.SOL): CDCl3
Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 13C
Solvents (.SOL): CDCl3
Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

NMR
Description (.KW): Spin-spin coupling constants
Solvents (.SOL): CDCl3
Note(s) (.COM): 1H-1H
Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

Infrared Spectrum:

Description (.KW)	Solvent (.SOL)	Ref.	Note
Bands	nujol	1	1

Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

Notes(s):
1. 3329 - 699 cm**(-1)

Reaction:

RX

Reaction ID (.ID):	4711713
Reactant BRN (.RBRN):	7751543
Reactant (.RCT):	N-benzyl-N-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-hydroxylamine
Product BRN (.PBRN):	7750798
Product (.PRO):	benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-amine
No. of React. Details (.NVAR):	1

Reaction Details:

RX

Reaction RID (.RID):	4711713.1
Reaction Classification (.CL):	Preparation
Yield (.YDT):	80 percent (BRN=7750798)
Reagent (.RGT):	Zn, Cu(OAc)2, AcOH
Solvent (.SOL):	H2O
Time (.TIM):	1 hour(s)
Temperature (.T):	70 Cel

Reference(s):

1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

Reaction:

RX

Reaction ID (.ID):	4711538
Reactant BRN (.RBRN):	7750798
Reactant (.RCT):	benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-amine
Product BRN (.PBRN):	1563856
Product (.PRO):	5-amino-5,6-dideoxy-1,2-O-(1-methylethylidene)-.alpha.-D-glucofuranose
No. of React. Details (.NVAR):	1

Reaction Details:

RX

Reaction RID (.RID):	4711538.1
Reaction Classification (.CL):	Preparation
Yield (.YDT):	80 percent (BRN=1563856)
Reagent (.RGT):	HCOONH4
Catalyst (.CAT):	10percent Pd/C
Solvent (.SOL):	methanol
Time (.TIM):	45 min
Other Conditions (.COND):	Heating

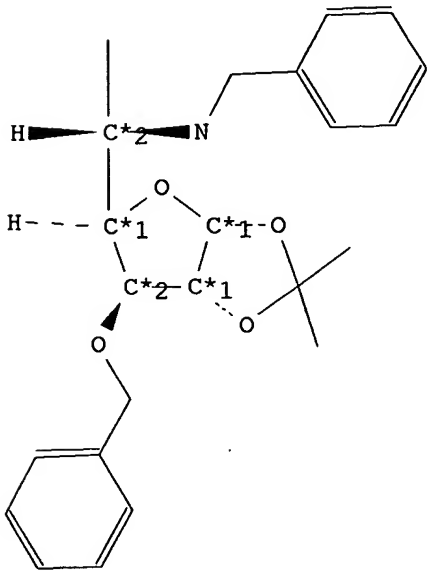
Reference(s):

1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

L9 ANSWER 9 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	7750797

Chemical Name (CN):	benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-amine
Autonom Name (AUN):	benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-amine
Molec. Formula (MF):	C23 H29 N O4
Molecular Weight (MW):	383.49
Lawson Number (LN):	23786, 14140, 5228
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	6602721
Tautomer ID (TAUTID):	7304917
Beilstein Citation (BSO):	6-19
Entry Date (DED):	1997/11/18
Update Date (DUPD):	1997/11/18



Atom/Bond Notes:
1. CIP Descriptor: R
2. CIP Descriptor: S

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1

CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1
IR	Infrared Spectrum	1
NMR	Nuclear Magnetic Resonance	3
ORP	Optical Rotatory Power	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	2
RXREA	Substance is Reaction Reactant	1
RXPRO	Substance is Reaction Product	1

Optical Rotatory Power:

Value (ORP) (deg)	Type (.TYP)	Concentr. (.C)	Solvent (.SOL)	Wavelen. (.W) (nm)	Temp. (.T) (Cel)	Ref.
-52.8	[alpha]	1.3 g/100ml	CHCl3	589	25	1

Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

Nuclear Magnetic Resonance:

NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 1H
Solvents (.SOL): CDCl3
Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 13C
Solvents (.SOL): CDCl3
Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

NMR
Description (.KW): Spin-spin coupling constants
Solvents (.SOL): CDCl3
Note(s) (.COM): 1H-1H
Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

Infrared Spectrum:

Description (.KW)	Solvent (.SOL)	Ref.	Note
Bands	nujol	1	1

Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

Notes(s):
1. 3311 - 698 cm**(-1)

Reaction:
RX

Reaction ID (.ID):	4711712
Reactant BRN (.RBRN):	7751542
Reactant (.RCT):	N-benzyl-N-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-hydroxylamine
Product BRN (.PBRN):	7750797
Product (.PRO):	benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-amine
No. of React. Details (.NVAR):	1

Reaction Details:
RX

Reaction RID (.RID):	4711712.1
Reaction Classification (.CL):	Preparation
Yield (.YDT):	77 percent (BRN=7750797)
Reagent (.RGT):	Zn, Cu(OAc)2, AcOH
Solvent (.SOL):	H2O
Time (.TIM):	1 hour(s)
Temperature (.T):	70 Cel

Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

Reaction:
RX

Reaction ID (.ID):	4711537
Reactant BRN (.RBRN):	7750797
Reactant (.RCT):	benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-amine
Product BRN (.PBRN):	7744559
Product (.PRO):	5-amino-5,6-dideoxy-1,2-O-(1-methylethylidene)-.beta.-L-idofuranose
No. of React. Details (.NVAR):	1

Reaction Details:
RX

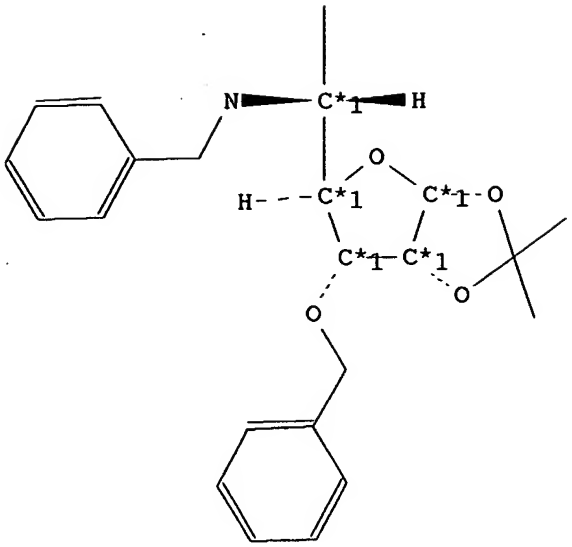
Reaction RID (.RID):	4711537.1
Reaction Classification (.CL):	Preparation
Yield (.YDT):	78 percent (BRN=7744559)
Reagent (.RGT):	HCOONH4
Catalyst (.CAT):	10percent Pd/C
Solvent (.SOL):	methanol
Time (.TIM):	45 min
Other Conditions (.COND):	Heating

Reference(s):

1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

L9 ANSWER 10 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	7750796
Chemical Name (CN):	benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-amine
Autonom Name (AUN):	benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-amine
Molec. Formula (MF):	C23 H29 N O4
Molecular Weight (MW):	383.49
Lawson Number (LN):	23786, 14140, 5228
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	6602721
Tautomer ID (TAUTID):	7304916
Beilstein Citation (BSO):	6-19
Entry Date (DED):	1997/11/18
Update Date (DUPD):	1997/11/18



Atom/Bond Notes:
1. CIP Descriptor: R

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1
IR	Infrared Spectrum	1
NMR	Nuclear Magnetic Resonance	3
ORP	Optical Rotatory Power	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

Optical Rotatory Power:

Value (ORP)	Type (.TYP)	Concentr. (.C)	Solvent (.SOL)	Wavelen. (.W)	Temp. (.T)	Ref.

(deg)				(nm)	(Cel)	
115.6	[alpha]	0.5 g/100ml	CHCl3	589	25	1

Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

Nuclear Magnetic Resonance:
NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 1H
Solvents (.SOL): CDCl3
Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 13C
Solvents (.SOL): CDCl3
Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

NMR
Description (.KW): Spin-spin coupling constants
Solvents (.SOL): CDCl3
Note(s) (.COM): 1H-1H
Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

Infrared Spectrum:

Description (.KW)	Solvent (.SOL)	Ref.	Note
Bands	nujol	1	1

Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

Notes(s):
1. 3332 - 734 cm**(-1)

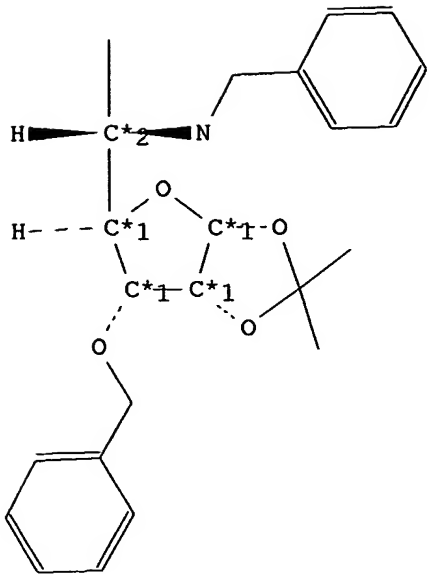
Reaction:
RX
Reaction ID (.ID): 4711711

Reactant BRN (.RBRN): 7751541
Reactant (.RCT): N-benzyl-N-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-hydroxylamine
Product BRN (.PBRN): 7750796
Product (.PRO): benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-amine
No. of React. Details (.NVAR): 1

Reaction Details:
RX
Reaction RID (.RID): 4711711.1
Reaction Classification (.CL): Preparation
Yield (.YDT): 78 percent (BRN=7750796)
Reagent (.RGT): Zn, Cu(OAc)2, AcOH
Solvent (.SOL): H2O
Time (.TIM): 1 hour(s)
Temperature (.T): 70 Cel
Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

L9 ANSWER 11 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN): 7750795
Chemical Name (CN): benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-amine
Autonom Name (AUN): benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-amine
Molec. Formula (MF): C23 H29 N O4
Molecular Weight (MW): 383.49
Lawson Number (LN): 23786, 14140, 5228
File Segment (FS): Stereo compound
Compound Type (CTYPE): heterocyclic
Constitution ID (CONSID): 6602721
Tautomer ID (TAUTID): 7304915
Beilstein Citation (BSO): 6-19
Entry Date (DED): 1997/11/18
Update Date (DUPD): 1997/11/18



Atom/Bond Notes:
1. CIP Descriptor: R
2. CIP Descriptor: S

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1
IR	Infrared Spectrum	1
NMR	Nuclear Magnetic Resonance	3
ORP	Optical Rotatory Power	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

Optical Rotatory Power:

Value (ORP) (deg)	Type (.TYP)	Concentr. (.C)	Solvent (.SOL)	Wavelen. (.W) (nm)	Temp. (.T) (Cel)	Ref.
25.13	[alpha]	0.3 g/100ml	CHCl3	589	25	1

Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

Nuclear Magnetic Resonance:

NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 1H
Solvents (.SOL): CDCl3
Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 13C
Solvents (.SOL): CDCl3
Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

NMR
Description (.KW): Spin-spin coupling constants
Solvents (.SOL): CDCl3
Note(s) (.COM): 1H-1H
Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

Infrared Spectrum:

Description (.KW)	Solvent (.SOL)	Ref.	Note
Bands	nujol	1	1

Reference(s):
1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

Notes(s):
1. 3443 - 663 cm**(-1)

Reaction:

RX

Reaction ID (.ID):	4711710
Reactant BRN (.RBRN):	7751540
Reactant (.RCT):	N-benzyl-N-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-hydroxylamine
Product BRN (.PBRN):	7750795
Product (.PRO):	benzyl-<1-(6-benzyloxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-amine
No. of React. Details (.NVAR):	1

Reaction Details:

RX

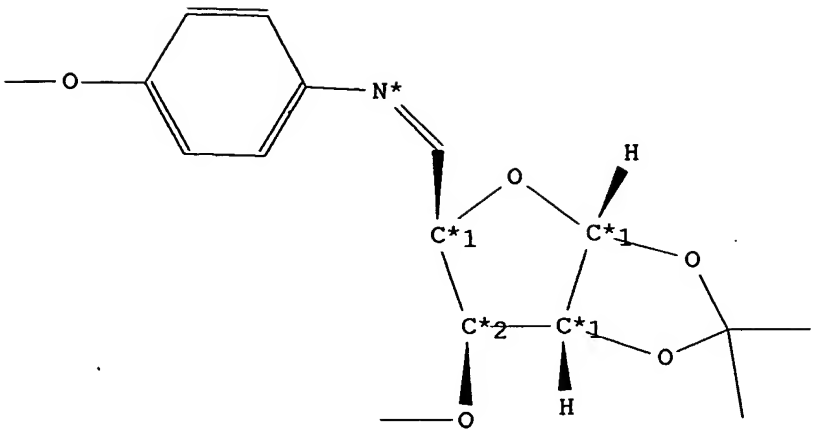
Reaction RID (.RID):	4711710.1
Reaction Classification (.CL):	Preparation
Yield (.YDT):	75 percent (BRN=7750795)
Reagent (.RGT):	Zn, Cu(OAc)2, AcOH
Solvent (.SOL):	H2O
Time (.TIM):	1 hour(s)
Temperature (.T):	70 Cel

Reference(s):

1. Dhavale, Dilip D.; Desai, Vijaya N.; Sindkhedkar, Milind D.; Mali, Raghao S.; Castellari, Carlo; Trombini, Claudio, Tetrahedron: Asymmetry, CODEN: TASYE3, 8(9), <1997>, 1475-1486; BABS-6058013

L9 ANSWER 12 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	3620817
Beilstein Pref. RN (BPR):	126378-36-7
CAS Reg. No. (RN):	126378-36-7
Chemical Name (CN):	(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethylene)-(4-methoxy-phenyl)-amine
Autonom Name (AUN):	(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethylene)-(4-methoxy-phenyl)-amine
Molec. Formula (MF):	C16 H21 N O5
Molecular Weight (MW):	307.35
Lawson Number (LN):	23624, 14892, 289
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	3232507
Tautomer ID (TAUTID):	3493239
Beilstein Citation (BSO):	6-19
Entry Date (DED):	1991/10/23
Update Date (DUPD):	1993/03/20



Atom/Bond Notes:
1. CIP Descriptor: R
2. CIP Descriptor: S

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXREA	Substance is Reaction Reactant	1

Reaction:
RX

Reaction ID (.ID):	1785487
Reactant BRN (.RBRN):	1423066, 3620817
Reactant (.RCT):	furan-2-yloxy-trimethyl-silane, (6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethylene)-(4-methoxy-phenyl)-amine
Product BRN (.PBRN):	3656562, 3656561

Product (.PRO): 5-<(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-(4-methoxy-phenylamino)-methyl>-5H-furan-2-one, 5-<(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-(4-methoxy-phenylamino)-methyl>-5H-furan-2-one

No. of React. Details (.NVAR): 1

Reaction Details:

RX

Reaction RID (.RID): 1785487.1
Reaction Classification (.CL): Preparation
Reagent (.RGT): 1.) BF3*Et2O, 2.) citric acid
Other Conditions (.COND): 1.) CH2Cl2, -80 deg C, 2.) CH3OH
Note(s) (.COM): Yield given. Multistep reaction. Yields of byproduct given

5

Reference(s):

1. Casiraghi, Giovanni; Colombo, Lino; Rassu, Gloria; Spanu, Pietro, J.Org.Chem., CODEN: JOCEAH, 55(9), <1990>, 2565-2567; BABS-5513674

L9 ANSWER 13 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN): 1410583
Beilstein Pref. RN (BPR): 64775-26-4
CAS Reg. No. (RN): 64775-26-4
Chemical Name (CN): 1-<3-<(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-amino>-10,13-dimethyl-hexadecahydro-cyclopenta<a>phenanthren-17-yl>-ethanone
Autonom Name (AUN): 1-<3-<(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-amino>-10,13-dimethyl-hexadecahydro-cyclopenta<a>phenanthren-17-yl>-ethanone
Molec. Formula (MF): C30 H49 N O5
Molecular Weight (MW): 503.72
Lawson Number (LN): 23776, 15528, 289
File Segment (FS): Stereo compound
Compound Type (CTYPE): heterocyclic
Constitution ID (CONSID): 1388489
Tautomer ID (TAUTID): 1431683
Beilstein Citation (BSO): 5-19
Entry Date (DED): 1988/11/29
Update Date (DUPD): 1988/12/08

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Atom/Bond Notes:

1. CIP Descriptor: R
2. CIP Descriptor: S

Field Availability:

Code	Name	Occurrence

BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

Reaction:
RX

Reaction ID (.ID): 6557880
Product BRN (.PBRN): 1410583
Product (.PRO): 1-<3-<(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-amino>-10,13-dimethyl-hexadecahydro-cyclopenta<a>phenanthren-17-yl>-ethanone
No. of React. Details (.NVAR): 1

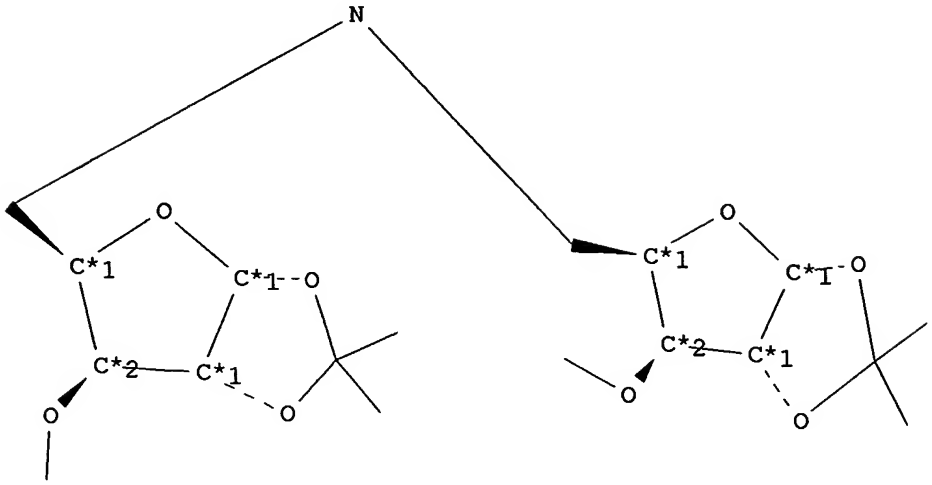
Reaction Details:
RX

Reaction RID (.RID): 6557880.1
Reaction Classification (.CL): Preparation (half reaction)
Reference(s):
1. Tronchet et al., Helv.Chim.Acta, CODEN: HCACAV, 60, <1977>, 1932

L9 ANSWER 14 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN): 1397281
Beilstein Pref. RN (BPR): 64775-25-3
CAS Reg. No. (RN): 64775-25-3
Chemical Name (CN): bis-(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-amine
Autonom Name (AUN): bis-(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-amine
Molec. Formula (MF): C18 H31 N O8
Molecular Weight (MW): 389.44
Lawson Number (LN): 23776, 289
File Segment (FS): Stereo compound
Compound Type (CTYPE): heterocyclic
Constitution ID (CONSID): 1275822

Tautomer ID (TAUTID): 1300537
Beilstein Citation (BSO): 5-19
Entry Date (DED): 1988/11/29
Update Date (DUPD): 1988/12/08



Atom/Bond Notes:
1. CIP Descriptor: R
2. CIP Descriptor: S

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	2
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1

RXPRO Substance is Reaction Product 1

Reaction:
RX

Reaction ID (.ID):	6547456
Product BRN (.PBRN):	1397281
Product (.PRO):	bis-(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-amine
No. of React. Details (.NVAR):	1

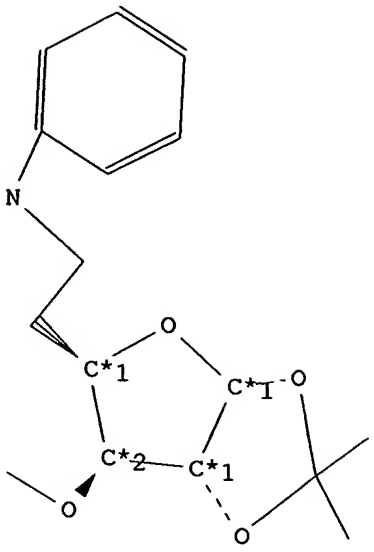
Reaction Details:
RX

Reaction RID (.RID):	6547456.1
Reaction Classification (.CL):	Preparation (half reaction)

Reference(s):
1. Tronchet et al., Helv.Chim.Acta, CODEN: HCACAV, 60, <1977>, 1932

L9 ANSWER 15 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	1385200
Beilstein Pref. RN (BPR):	64775-28-6
CAS Reg. No. (RN):	64775-28-6
Chemical Name (CN):	<2-(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-phenyl-amine
Autonom Name (AUN):	<2-(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-phenyl-amine
Molec. Formula (MF):	C16 H23 N O4
Molecular Weight (MW):	293.36
Lawson Number (LN):	23785, 14131, 289
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	1254521
Tautomer ID (TAUTID):	1308639
Beilstein Citation (BSO):	5-19
Entry Date (DED):	1988/11/29
Update Date (DUPD):	1988/12/08



Atom/Bond Notes:
1. CIP Descriptor: R
2. CIP Descriptor: S

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

Reaction:
RX

Reaction ID (.ID):	6537589
Product BRN (.PBRN):	1385200
Product (.PRO):	<2-(6-methoxy-2,2-dimethyl-tetrahydro-

furo<2,3-d><1,3>dioxol-5-yl)-ethyl>-phenyl-amine

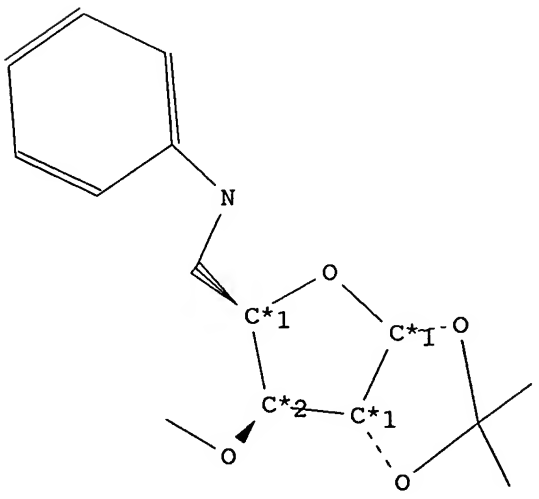
No. of React. Details (.NVAR): 1

Reaction Details:
RX

Reaction RID (.RID): 6537589.1
Reaction Classification (.CL): Preparation (half reaction)
Reference(s):
1. Tronchet et al., Helv.Chim.Acta, CODEN: HCACAV, 60, <1977>, 1932

L9 ANSWER 16 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	1382751
Beilstein Pref. RN (BPR):	64775-22-0
CAS Reg. No. (RN):	64775-22-0
Chemical Name (CN):	(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-phenyl-amine
Autonom Name (AUN):	(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-phenyl-amine
Molec. Formula (MF):	C15 H21 N O4
Molecular Weight (MW):	279.34
Lawson Number (LN):	23776, 14131, 289
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	1244939
Tautomer ID (TAUTID):	1303413
Beilstein Citation (BSO):	5-19
Entry Date (DED):	1988/11/29
Update Date (DUPD):	1988/12/08



Atom/Bond Notes:
1. CIP Descriptor: R

2. CIP Descriptor: S

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

Reaction:
RX

Reaction ID (.ID): 6535527
Product BRN (.PBRN): 1382751
Product (.PRO): (6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-phenyl-amine
No. of React. Details (.NVAR): 1

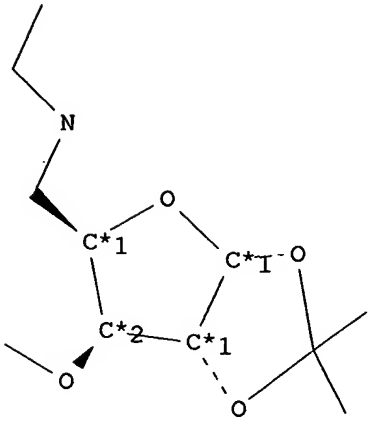
Reaction Details:
RX

Reaction RID (.RID): 6535527.1
Reaction Classification (.CL): Preparation (half reaction)
Reference(s):
1. Tronchet et al., Helv.Chim.Acta, CODEN: HCACAV, 60, <1977>, 1932

L9 ANSWER 17 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN): 1366807
Beilstein Pref. RN (BPR): 64775-21-9
CAS Reg. No. (RN): 64775-21-9
Chemical Name (CN): ethyl-(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-amine
Autonom Name (AUN): ethyl-(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-amine
Molec. Formula (MF): C11 H21 N O4
Molecular Weight (MW): 231.29

Lawson Number (LN):	23776, 2826, 289
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	1236182
Tautomer ID (TAUTID):	1270514
Beilstein Citation (BSO):	5-19
Entry Date (DED):	1988/11/29
Update Date (DUPD):	1988/12/08



Atom/Bond Notes:
1. CIP Descriptor: R
2. CIP Descriptor: S

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1

RXPRO Substance is Reaction Product 1

Reaction:
RX

Reaction ID (.ID):	6522599
Product BRN (.PBRN):	1366807
Product (.PRO):	ethyl-(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-amine
No. of React. Details (.NVAR):	1

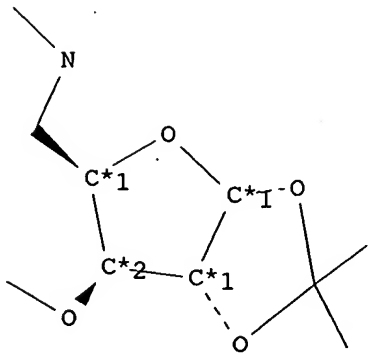
Reaction Details:
RX

Reaction RID (.RID):	6522599.1
Reaction Classification (.CL):	Preparation (half reaction)

Reference(s):
1. Tronchet et al., Helv.Chim.Acta, CODEN: HCACAV, 60, <1977>, 1932

L9 ANSWER 18 OF 18 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	1366580
Beilstein Pref. RN (BPR):	64775-20-8
CAS Reg. No. (RN):	64775-20-8
Chemical Name (CN):	(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-methyl-amine
Autonom Name (AUN):	(6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-methyl-amine
Molec. Formula (MF):	C10 H19 N O4
Molecular Weight (MW):	217.26
Lawson Number (LN):	23776, 2817, 289
File Segment (FS):	Stereo compound
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	1232363
Tautomer ID (TAUTID):	1268037
Beilstein Citation (BSO):	5-19
Entry Date (DED):	1988/11/29
Update Date (DUPD):	1988/12/08



Atom/Bond Notes:
1. CIP Descriptor: R
2. CIP Descriptor: S

Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

Reaction:
RX

Reaction ID (.ID): 6522416
Product BRN (.PBRN): 1366580
Product (.PRO): (6-methoxy-2,2-dimethyl-tetrahydro-furo<2,3-d><1,3>dioxol-5-ylmethyl)-methyl-amine
No. of React. Details (.NVAR): 1

Reaction Details:
RX

Reaction RID (.RID): 6522416.1
Reaction Classification (.CL): Preparation (half reaction)
Reference(s):
1. Tronchet et al., Helv.Chim.Acta, CODEN: HCACAV, 60, <1977>, 1932